



L'anno duemilaquattordici, addì **25 novembre** alle ore 15.30, a seguito di regolare convocazione trasmessa con nota prot. n. 67302 del 20 novembre 2014, il cui ordine del giorno è stato integrato con note prot. 67628 del 24 novembre 2014, prot. 67858 del 24 novembre 2014 e prot. 67902 del 25 novembre 2014, nell'Aula Organi Collegiali si é riunito il Senato Accademico per l'esame e la discussione degli argomenti iscritti al seguente ordine del giorno:

.....**o m i s s i s** .....

**Sono presenti:** il Rettore, prof. Eugenio Gaudio ed i componenti del Senato Accademico: prof. Renato Masiani, Pro-Rettore Vicario, prof. Stefano Biagioni, prof.ssa Maria Rosaria Torrisi, prof. Davide Antonio Ragozzino, prof.ssa Alessandra Zicari, prof. Giorgio Graziani, prof.ssa Rita Asquini, prof.ssa Stefania Portoghesi Tuzi, prof.ssa Beatrice Alfonzetti, prof.ssa Matilde Mastrangelo, prof. Alessandro Saggioro, prof. Giorgio Piras, prof. Emanuele Caglioti, prof.ssa Maria Grazia Betti, prof. Felice Cerreto, prof. Giorgio De Toma, prof.ssa Susanna Morano, prof. Marco Biffoni, prof. Giuseppe Santoro Passarelli (entra alle ore 16.30), prof. Augusto D'Angelo, prof.ssa Paola Panarese, i Rappresentanti del personale: Beniamino Altezza (entra alle ore 17.25), Tiziana Germani, Pietro Maioli, Roberto Ligia, Carlo D'Addio e i Rappresentanti degli studenti: Manuel Santu, Valeria Roscioli, Stefano Capodieci, Maria Gabriella Condello, Pierleone Lucatelli (entra alle ore 16.30) e Diana Armento (entra alle ore 17.16).

**Assistono:** il Direttore Generale, Carlo Musto D'Amore, che assume le funzioni di Segretario, i Presidi: prof. Giuseppe Ciccarone, prof. Giorgio Spangher, prof. Fabrizio Vestroni, prof. Vincenzo Nesi, prof. Roberto Nicolai, prof. Giuseppe Venanzoni, prof. Adriano Redler, i Vice Presidi: prof. Claudio Villani e prof.ssa Anna Maria Giovenale, il Direttore della Scuola di Studi Avanzati prof. Alessandro Schiesaro e la Rappresentante degli assegnisti/dottorandi, dr.ssa Valentina Mariani.

**Assenti giustificati:** prof.ssa Emma Baumgartner e prof. Stefano Catucci.

**Il Presidente, constatata l'esistenza del numero legale, dichiara l'adunanza validamente costituita ed apre la seduta.**

.....**o m i s s i s** .....



25 NOV 2014  
SSA 107/14

### Chiamate dirette del personale docente

Il Presidente ricorda che nella seduta dell'11.11.2014 sono state sottoposte all'esame del Senato Accademico le proposte di chiamata diretta pervenute dai Dipartimenti interessati, corredate dei relativi curricula.

A tal riguardo il Senato Accademico ha deliberato di nominare una Commissione, presieduta dal Pro-Rettore Vicario, prof. Renato Masiani, anche in rappresentanza della Macro-area D, e composta dai professori:

Alessandro Saggiaro, Macro-area E

Giorgio De Toma, Macro-area C

Davide Antonio Ragozzino, Macro-area B

Paola Panarese, Macro-area F

Emanuele Caglioti, Macro-area A

con il compito di verificare, prima dell'inoltro al MIUR delle proposte di chiamata diretta pervenute, nonché di quelle che eventualmente perverranno, il possesso da parte dei candidati anche dei requisiti ANVUR.

Il Senato Accademico ha, inoltre, deliberato di rinviare ogni decisione in ordine all'inoltro al MIUR della proposta di chiamata diretta della dott.ssa Grazia Portoghesi Tuzi in qualità di Ricercatore a tempo determinato di tipo B), alla prossima seduta in attesa di specifica delibera del Dipartimento interessato all'assunzione a proprio carico del relativo finanziamento.

A tal riguardo il Direttore del Dipartimento di Scienze Documentarie, linguistico-filologiche e documentarie, con nota del 20.11.2014 prot. n. 202/2014, ha ribadito che non è possibile procedere alla chiamata della dott.ssa Portoghesi se non a condizione di un cofinanziamento del MIUR o dell'Ateneo pari al 95%, considerato che la programmazione approvata dal Dipartimento non consente di assumersi un onere pari al 50% e tanto meno l'intero budget (in mancanza di una norma che includa nel cofinanziamento i ricercatori).

Infine il Senato Accademico ha deliberato di confermare che nelle future assegnazioni di risorse siano conteggiate ai Dipartimenti beneficiari le presenti assegnazioni, nella misura stabilita dal Senato Accademico con delibere del 7 giugno 2011, del 26.11.2013 n. 422/13 e del 27.5.2014 n. 289/14.

La Commissione, riunitasi in data 19 novembre 2014, ha preso visione dei curricula dei sottoelencati docenti, della documentazione allegata, dei verbali dei Consigli dei Dipartimenti che hanno trasmesso le delibere contenenti le proposte di chiamata diretta e dell'art. 11 del "Regolamento per l'assegnazione delle risorse, per la chiamata dei professori di I e II



**SAPIENZA**  
UNIVERSITÀ DI ROMA

fascia e per il reclutamento di Ricercatori a tempo determinato tipologia B", nonché dei DM 1 luglio 2011 e DM n. 1 luglio 2011.

Senato  
Accademico

Sezione dei

25 NOV. 2011

CONFERMA L'INTEGRAZIONE DI ROMA

CONFERMA L'INTEGRAZIONE DI ROMA

Enrica Cavallo  
Giancarlo

Enrica Cavallo  
Giancarlo

| Nominativo                        | Ruolo | Dipartimento<br>proponente                                             | S.S.D.         | PO<br>comples<br>sivi | PO a<br>carico<br>MIUR | PO a<br>carico<br>universit<br>à |
|-----------------------------------|-------|------------------------------------------------------------------------|----------------|-----------------------|------------------------|----------------------------------|
| Domenica<br>BUETI                 | PA    | Psicologia<br>Dinamica e Clinica                                       | M-<br>PSI/01   | 0,70                  | 0,35                   | 0,35                             |
| Laura SANITA'                     | PA    | Ingegneria<br>Informatica<br>Automatica<br>Gestionale "A.<br>Ruberti"  | MAT/09         | 0,70                  | 0,35                   | 0,35                             |
| Frank<br>MARZANO                  | PO    | Ingegneria<br>dell'Informazione,<br>Elettronica e<br>Telecomunicazioni | ING-<br>INF/02 | 0,30                  | 0,15                   | 0,15                             |
| Francesco<br>MAURI                | PO    | Fisica                                                                 | FIS/03         | 1,00                  | 0,50                   | 0,50                             |
| Alessandro<br>VENEZIANI           | PA    | Matematica                                                             | MAT/08         | 0,70                  | 0,35                   | 0,35                             |
| Enzo PASCALE                      | PA    | Fisica                                                                 | FIS/05         | 0,70                  | 0,35                   | 0,35                             |
| Sandro DE<br>CECCO                | PA    | Fisica                                                                 | FIS/01         | 0,70                  | 0,35                   | 0,35                             |
| Olga<br>Mikhailovna<br>YASTREBOVA | PA    | Dipartimento<br>"Istituto di Studi<br>Orientali" ISO                   | L-<br>OR/15    | 0,70                  | 0,35                   | 0,35                             |
| Neguin YAVARI                     | PA    | Dipartimento<br>"Istituto di Studi<br>Orientali" ISO                   | L-<br>OR/14    | 0,70                  | 0,35                   | 0,35                             |

La Commissione valutati i CV, le posizioni attualmente ricoperte e le abilitazioni nazionali conseguite, ha espresso parere favorevole in ordine alle seguenti proposte di chiamata diretta:

| Nominativo              | Ruolo | Dipartimento<br>proponente                                             | S.S.D.         | PO<br>comples<br>sivi | PO a<br>carico<br>MIUR | PO a<br>carico<br>universit<br>à |
|-------------------------|-------|------------------------------------------------------------------------|----------------|-----------------------|------------------------|----------------------------------|
| Frank<br>MARZANO        | PO    | Ingegneria<br>dell'Informazione,<br>Elettronica e<br>Telecomunicazioni | ING-<br>INF/02 | 1,00                  | 0,50                   | 0,50                             |
| Francesco<br>MAURI      | PO    | Fisica                                                                 | FIS/03         | 1,00                  | 0,50                   | 0,50                             |
| Alessandro<br>VENEZIANI | PA    | Matematica                                                             | MAT/08         | 0,70                  | 0,35                   | 0,35                             |



Senato  
Accademico

25 NOV 2014

SENATO ACCADEMICO DI ROMA

UFFICIO DEL PRESIDENTE  
PRESIDENTE  
VICE PRESIDENTE  
SEGRETERIA

Prodotto da Cavallo

UFFICIO DEL PRESIDENTE  
PRESIDENTE  
VICE PRESIDENTE  
SEGRETERIA

|                 |    |                                                      |             |      |      |      |
|-----------------|----|------------------------------------------------------|-------------|------|------|------|
| Enzo PASCALE    | PA | Fisica                                               | FIS/05      | 0,70 | 0,35 | 0,35 |
| Sandro DE CECCO | PA | Fisica                                               | FIS/01      | 0,70 | 0,35 | 0,35 |
| Neguin YAVARI   | PA | Dipartimento<br>"Istituto di Studi<br>Orientali" ISO | L-<br>OR/14 | 0,70 | 0,35 | 0,35 |

La Commissione ha rilevato poi che i sottoelencati docenti non hanno ancora stabilmente raggiunto la posizione equivalente a professore di seconda fascia all'estero richiesta e pur in presenza, per la candidata Bueti, dell'abilitazione scientifica nazionale alla seconda fascia, ha ritenuto opportuno non accogliere per quest'anno la richiesta di chiamata diretta.

| Nominativo                     | Ruolo | Dipartimento<br>proponente                                   | S.S.D.       | PO<br>comples<br>sivi | PO a<br>carico<br>MIUR | PO a<br>carico<br>univer<br>sità |
|--------------------------------|-------|--------------------------------------------------------------|--------------|-----------------------|------------------------|----------------------------------|
| Domenica BUETI                 | PA    | Psicologia Dinamica e<br>Clinica                             | M-<br>PSI/01 | 0,70                  | 0,35                   | 0,35                             |
| Laura SANITA'                  | PA    | Ing. Informatica<br>Automatica<br>Gestionale "A.<br>Ruberti" | MAT/09       | 0,70                  | 0,35                   | 0,35                             |
| Olga Mikhailovna<br>YASTREBOVA | PA    | Dipartimento "Istituto<br>di Studi Orientali" ISO            | L-<br>OR/15  | 0,70                  | 0,35                   | 0,35                             |

Alla luce di quanto sopra il Senato Accademico è invitato a deliberare in ordine all'inoltro al MIUR delle proposte di chiamata diretta.

Allegati parte integrante:

- CV Domenica BUETI
- CV Laura SANITA'
- CV Frank MARZANO
- CV Francesco MAURI
- CV Alessandro VENEZIANI
- CV Enzo PASCALE
- CV Sandro DE CECCO
- CV Neguin YAVARI
- CV Olga Mikhailovna YASTREBOVA
- Verbale della Commissione del 19.11.2014



Senato  
Accademico

Seduta del

25 NOV. 2014

**DELIBERAZIONE N. 474/14**

**IL SENATO ACCADEMICO**

- LETTA** la relazione istruttoria;
- VISTO** lo Statuto dell'Università;
- VISTO** l'art.1, comma 9 della Legge 230/2005 e successive modificazioni ed integrazioni;
- VISTE** le proposte di chiamata diretta;
- VISTI** i curricula dei docenti;
- VISTA** la delibera del Senato Accademico dell'11.11.2014 n. 442/14;
- VISTA** la nota del Dipartimento di Scienze Documentarie, linguistico-filologiche e documentarie del 20.11.2014, prot. n. 202/2014;
- VISTO** il verbale della Commissione del 19.11.2014;
- RITENUTO** di dover accogliere le osservazioni formulate dalla Commissione sulle proposte di chiamata diretta dei docenti Domenica Buetti, Laura Sanità e Olga Mikhailovna Yastrebova non avendo i medesimi ancora stabilmente raggiunto la posizione equivalente a professore di seconda fascia all'estero;
- TENUTO CONTO** di quanto emerso nel corso del dibattito in particolare sull'opportunità che la chiamata diretta della docente Neguin Yavari sia fatta sul SSD L-OR/10 anziché L-OR/14;

**Con voto unanime**

**DELIBERA**

- di esprimere parere favorevole in ordine all'inoltro al MIUR delle proposte di chiamata diretta dei seguenti docenti le cui risorse saranno conteggiate nelle assegnazioni future di risorse ai Dipartimenti beneficiari, nella misura del cofinanziamento stabilita dal Senato Accademico con delibere del 7 giugno 2011, del



26.11.2013 n. 422/13, del 27.5.2014 n. 289/14 e dell'11.11.2014 n. 442/14.

25 NOV. 2014

| Nominativo           | Ruolo | Dipartimento proponente                                       | S.S.D.     | PO complessivi | PO a carico MIUR | PO a carico università |
|----------------------|-------|---------------------------------------------------------------|------------|----------------|------------------|------------------------|
| Frank MARZANO        | PO    | Ingegneria dell'Informazione, Elettronica e Telecomunicazioni | ING-INF/02 | 0,30           | 0,15             | 0,15                   |
| Francesco MAURI      | PO    | Fisica                                                        | FIS/03     | 1,00           | 0,50             | 0,50                   |
| Alessandro VENEZIANI | PA    | Matematica                                                    | MAT/08     | 0,70           | 0,35             | 0,35                   |
| Enzo PASCALE         | PA    | Fisica                                                        | FIS/05     | 0,70           | 0,35             | 0,35                   |
| Sandro DE CECCO      | PA    | Fisica                                                        | FIS/01     | 0,70           | 0,35             | 0,35                   |
| Neguini YAVARI       | PA    | Istituto Italiano di Studi Orientali ISO                      | L-OR/10    | 0,70           | 0,35             | 0,35                   |

- di esprimere parere non favorevole in ordine all'inoltro al MIUR delle proposte di chiamata diretta dei sottoelencati docenti per le motivazioni indicate in premessa:

| Nominativo                  | Ruolo | Dipartimento proponente                             | S.S.D.   | PO complessivi | PO a carico MIUR | PO a carico università |
|-----------------------------|-------|-----------------------------------------------------|----------|----------------|------------------|------------------------|
| Domenica BUETI              | PA    | Psicologia Dinamica e Clinica                       | M-PSI/01 | 0,70           | 0,35             | 0,35                   |
| Laura SANITA'               | PA    | Ing. Informatica Automatica Gestionale "A. Ruberti" | MAT/09   | 0,70           | 0,35             | 0,35                   |
| Olga Mikhailovna YASTREBOVA | PA    | Dipartimento "Istituto di Studi Orientali" ISO      | L-OR/15  | 0,70           | 0,35             | 0,35                   |

Letto e approvato seduta stante per la sola parte dispositiva.

IL SEGRETARIO  
Carlo Musto D'Amore

IL PRESIDENTE  
Eugenio Gaudio

### Informazioni Personali

|                 |                                                     |              |
|-----------------|-----------------------------------------------------|--------------|
| Nome, Cognome   | Domenica, Buetti                                    |              |
| Data di nascita | 16/02/1974                                          |              |
| URL sito-web    | <a href="http://www.unil.ch">http://www.unil.ch</a> | gc83022.html |

### Posizioni Accademiche Ricoperte

|                     |                                                                                                                                    |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Gennaio 2011 a oggi | Responsabile di Ricerca, Dipartimento di Neuroscienze Cliniche (DNC), Ospedale Universitario di Losanna (CHUV), Losanna, Svizzera. |
| 2007-2010           | Ricercatore post-dottorato, Laboratorio di Neuroimmagini, Fondazione Santa Lucia, Roma, Italia.                                    |
| 2004-2007           | Ricercatore post-dottorato, Institute of Cognitive Neuroscience (ICN), University College London (UCL), Regno Unito.               |
| 2003-2004           | Studente di dottorato, Institute of Cognitive Neuroscience (ICN), University College London (UCL), Regno Unito.                    |

### Formazione Scolastica

|           |                                                                                                 |
|-----------|-------------------------------------------------------------------------------------------------|
| 2001-2004 | Dottorato di ricerca in neuroscienze cognitive (PhD), Università di Roma 'La Sapienza', Italia. |
| 1995-2000 | Laurea quinquennale in Psicologia, Università di Padova, Italia.                                |

### Finanziamenti di Ricerca e Premi

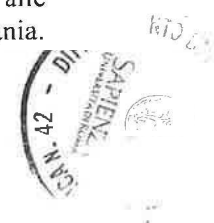
|           |                                                                                                                                                                                                                                                                                                                                              |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2014      | Abilitazione Scientifica Nazionale come professore di seconda fascia settore concorsuale 11/E1 Psicologia Generale, Psicobiologia e Psicometria ( <a href="https://abilitazione.cineca.it/ministero.php/public/esito/settore/11%252FE1/fascia/2">https://abilitazione.cineca.it/ministero.php/public/esito/settore/11%252FE1/fascia/2</a> ). |
| 2012-2014 | Responsabile di ricerca residente all'estero per il progetto: "Preparatory, response-related, outcome-evaluation and predictive components of attentional orienting in right brain damage: clues for diagnosis and rehabilitation". 274.000 € finanziato dal Ministero Italiano della Salute (RF-2010-2319059).                              |
| 2003-2004 | Borsa di studio "Marie Curie" (FP6, RTN-training site student. 21.000 €).                                                                                                                                                                                                                                                                    |

### Sommario delle Pubblicazioni Scientifiche (in basso la lista completa)

25 pubblicazioni (16 delle quali come primo o ultimo autore) in riviste internazionali "peer-reviewed" come Neuron, Journal of Neuroscience, Nature Neuroscience, Brain, Cortex, Neuroimage.  
1053 citazioni.  
h-index: 13 (*h* articoli citati *h* volte, fonte Scholar).

### Esperienze d'Insegnamento e di Supervisione di Progetti di Ricerca

|                |                                                                                                                                                                     |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2011 a oggi    | Sono supervisore di 2 studenti di Master in Biologia e Medicina e co-supervisore di due studenti di dottorato presso l'Ospedale Universitario di Losanna, Svizzera. |
| Settembre 2013 | Ho insegnato presso la scuola estiva internazionale dedicata alle "Neuroimmagini del Tempo", presso l'Università di Magdeburg, Germania.                            |



- Settembre 2011 Ho insegnato e sono stata coordinatore di progetto alla scuola estiva internazionale "FENS-IBRO Imaging Training Center" all'Università di Losanna, Svizzera.
- 2010 Ho organizzato un corso metodologico di statistica e neuroimmagini funzionali per dottorandi di ricerca e ricercatori post-dottorato presso il Laboratorio di Neuroimmagini della Fondazione Santa Lucia di Roma (Italia).
- 2008-2010 Sono stata co-supervisore di due studenti di dottorato all'Università di Roma 'La Sapienza'.
- 2006-2007 Ho supervisionato uno studente BSc presso l'ICN, London, Regno Unito.
- 2004-2006 Sono stata professore a contratto in Psicobiologia presso il Dipartimento di Psicologia, Università di Chieti, Italia.

### **Responsabilità Professionali**

#### *Attività di esperto*

- Riviste scientifiche. Vengo consultata in qualità di esperto da numerose riviste scientifiche internazionali sia del settore biologico che psicologico tra le quali: Brain, Cerebral Cortex, Cortex, Current Biology, Human Brain Mapping, Journal of Cognitive Neuroscience, Journal of Experimental Psychology, Journal of Neurophysiology, Journal of Neuroscience, Trends in Cognitive Sciences.
- Agenzie di Ricerca: Sono stata consultata in qualità di esperto dalle seguenti agenzie di ricerca: Agenzia Nazionale della Ricerca Francese (ANR); Fondo Nazionale Svizzero per la Ricerca (FN-SNF); Fondazione Israeliana per la Scienza (ISF).

#### *Attività editoriali*

- Editore Esperto per "Timing and Time perception" (Edizioni Brill).
- Editore Associato per "Frontiers in Neuroscience".

### **Appartenenza a Società Scientifiche Internazionali e Nazionali**

Sono membro della *Società Internazionale di Neuroscienze (Society for Neuroscience, SfN)*

### **Collaborazioni di Ricerca**

Prof. Mara Cercignani (CISC, Brighton and Sussex Medical School): cambiamenti cerebrali strutturali durante l'apprendimento.

Prof. Fabrizio Doricchi (Università di Roma, "La Sapienza"): cognizione numerica e interazioni con lo spazio e il tempo.

Dr. Ryota Kanai (School of Psychology, Sussex University, Regno Unito): mappe del tempo.

Dr. Ferath Kerif (DNC, CHUV, Losanna): Dynamic Causal Modeling (DCM) di network temporali.

Dr. Roger Kalla (Dipartimento di Neurologia, Ospedale Universitario di Monaco, Germania): elaborazione del tempo in pazienti vestibolari.

Dr. Emilano Macaluso (Fondazione Santa Lucia, Roma): attenzione temporale, apprendimento ed esperienza soggettiva del tempo.

Dr. Wietske Van der Zwaag (CIBM, EPFL, Losanna): mappe del tempo.





### Comunicazioni Scientifiche su Invito

2014 Lectio Magistralis, conferenza "Timing and Time Perception", Ionian University, Corfù, Grecia.

2013

Seminario, Dipartimento di Psicologia, Università di Bologna, Italia.

Workshop "Temporal Prediction", Università di Granada, Spagna.

Scuola internazionale estiva "Imaging Time", Università di Magdeburgo, Germania.

2012

Seminario, Clinical Imaging Sciences Center (CISC), Brighton and Sussex Medical School, Falmer, Regno Unito.

Nano-Symposium "Human Timing" presso Society for Neuroscience (SfN), New Orleans, USA.

Scuola estiva interdisciplinare "I nomi del Tempo", Dipartimento di Fisica e Astronomia, Università di Padova, Italia.

2011 FENS-IBRO Imaging Training Center 2011, Losanna, Svizzera.

2010 Intervista per una posizione accademica, Birkbeck College London, Regno Unito.

2009 Workshop "The Functions of the Parietal Lobes", Institute for Advanced Studies, Università Ebraica di Gerusalemme, Israele.

2008

- Workshop "The Nature of Time. From Physics to Psychology", Menéndez Pelayo Università Internazionale di Barcellona (CUIMPB - Centre Ernest Lluch), Spagna.

- Intervista per una posizione accademica, Dipartimento di Neuroscienze Cognitive della Scuola Internazionale di Studi Avanzati (SISSA), Trieste, Italia.

2007

- Seminario, Neuroimaging center (MARIARC), Università di Liverpool, Regno Unito.

- Workshop "The anatomy of Time", UCL, London, Regno Unito.

- Magstim workshop "TMS in Cognition", UCL, London, Regno Unito.

2000-2001-2009 Società Italiana di Neuropsicologia (SINP), Bologna, Italia.

### Attività di Divulgazione Scientifica

2014

- Seminario per TEDx Lausanne (<http://www.tedxlausanne.org/tedxlausanne-2014-speakers>).

- Intervista per BBC FUTURE (<http://www.bbc.com/future/story/20140624-the-man-who-saw-time-freeze>).

2012

- Intervista per "RAI-Radio3-Scienza"

(<http://www.radio3.rai.it/dl/radio3/programmi/puntata/ContentItem-65dc4d37-ab36-4fdb-ba57-72ad7cc22da6.html>).

- Intervista per "Radio Città Futura".

- Seminario per "Infinitamente", Festival di Arte e Scienza, Verona, Italia (<http://www.infinitamente.univr.it/programma.html>).

### Lista Completa delle Pubblicazioni Scientifiche ("peer-reviewed")

1. **Buetti, D.**, Buonomano, D.V. Temporal Perceptual Learning (in press). *Timing and Time Perception*.
2. Salvioni, P., Murray, M.M., Kalmbach, L., **Buetti, D.** (2013) How the visual brain encodes and keeps track of time, *J Neurosci.* 33. 12423-12429



3. Binetti, N., Siegler, I., **Buetti, D.\***, Doricchi, F.\* (2013). Adaptive tuning of perceptual timing to vestibular stimulation. *Neuropsychologia*, 51, 197-210 - special issue on 'Time processing' doi:10.1016/j.neuropsychologia.2012.10.029. \*Equal contribution.
4. Spierer, L., Manuel, A., **Buetti, D.**, Murray, M.M. (2013). Contributions of pitch and bandwidth to sound-induced enhancement of visual cortex excitability in humans. *Cortex* doi:10.1016/j.cortex.2013.01.001
5. **Buetti, D.**, Lasaponara, S., Cercignani M., Macaluso, E. (2012). Learning about time: Plastic Changes and Individual Brain Differences. *Neuron*, 75, 725-737.
6. Aiello, M., Courtois, S.J., Merola, S., Ottaviani, T., Tomaiuolo, F., **Buetti, D.**, Rossetti, Y., Doricchi, F. (2012). No inherent left and right side in human "mental number line": evidence from right brain damage. *Brain*. 135, 2492-2505.
7. **Buetti, D.** (2011). The sensory representation of time. *Front Integr Neurosci* 5, 34.
8. **Buetti, D.**, and Macaluso, E. (2011). Physiological correlates of subjective time: evidence for the temporal accumulator hypothesis. *Neuroimage* 57, 1251-1263.
9. Kanai, R., Lloyd, H., **Buetti, D.**, Walsh, V. (2011). Modality-independent role of the primary auditory cortex in time estimation. *Exp Brain Res* 209, 465-471.
10. Kalla, R., Muggleton, N., Spiegel, R., **Buetti, D.**, Claassen, J., Walsh, V., Bronstein, A. (2011). Adaptive motion processing in bilateral vestibular failure. *J Neurol Neurosurg Psychiatry* 82, 1212-1216.
11. Rusconi, E., **Buetti, D.**, Walsh, V., Butterworth, B. (2011). Contribution of frontal cortex to the spatial representation of number. *Cortex* 47, 2-13.
12. **Buetti, D.**, Bahrami, B., Walsh, V., Rees, G. (2010). Encoding of temporal probabilities in the human brain. *J Neurosci* 30, 4343-4352.
13. **Buetti, D.**, and Walsh, V. (2010). Memory for time distinguishes between perception and action. *Perception* 39, 81-90.
14. **Buetti, D.**, and Macaluso, E. (2010). Auditory temporal expectations modulate activity in visual cortex. *Neuroimage* 51, 1168-1183.
15. Binetti, N., Siegler, I.A., **Buetti, D.**, Doricchi, F. (2010). Time in motion: effects of whole-body rotatory accelerations on timekeeping processes. *Neuropsychologia* 48, 1842-1852.
16. **Buetti, D.**, and Walsh, V. (2009). The parietal cortex and the representation of time, space, number and other magnitudes. *Philos Trans R Soc Lond B Biol Sci* 364, 1831-1840.
17. Rusconi, E., **Buetti, D.**, Riello, M., Walsh, V., Butterworth, B. (2008). Where numerical cognition interacts with spatial attention. *Brain Stimulation: Basic, Translational, and Clinical Research in Neuromodulation*, 1, 316-317, doi:10.1016/j.brs.2008.06.184.
18. **Buetti, D.**, van Dongen, E.V., Walsh, V. (2008). The role of superior temporal cortex in auditory timing. *PLoS ONE* 3, e2481.
19. **Buetti, D.**, Walsh, V., Frith, C., Rees, G. (2008). Different brain circuits underlie motor and perceptual representations of temporal intervals. *J Cogn Neurosci* 20, 204-214.
20. **Buetti, D.**, Bahrami, B., Walsh, V. (2008). Sensory and association cortex in time perception. *J Cogn Neurosci* 20, 1054-1062.
21. Doricchi, F., Guariglia, P., Figliozzi, F., Silvetti, M., Gasparini, M., Merola, S., Macci, E., Binetti, N., Bruschini, M., **Buetti, D.** (2008). No reversal of the Oppel-Kundt illusion with short stimuli: confutation of the space anisometry interpretation of neglect and 'cross-over' in line bisection. *Brain* 131, e94; author reply e95.
22. Costantini, M., **Buetti, D.**, Pazzaglia, M., Aglioti, S.M. (2007). Temporal dynamics of visuo-tactile extinction within and between hemispaces. *Neuropsychology* 21, 242-250.
23. Avenanti, A., **Buetti, D.**, Galati, G., Aglioti, S.M. (2005). Transcranial magnetic stimulation highlights the sensorimotor side of empathy for pain. *Nat Neurosci* 8, 955-960.

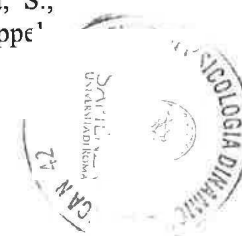


24. **Buetti, D.**, Costantini, M., Forster, B., Aglioti, S.M. (2004). Uni- and cross-modal temporal modulation of tactile extinction in right brain damaged patients. *Neuropsychologia* 42, 1689-1696.
25. **Buetti, D.**, Moro, V., Aglioti, S.M. (2001). Aspetti spazio-temporali dell'estinzione unimodale e crossmodale tattile in pazienti cerebrolesi destri. *Giornale Italiano di Psicologia* 28, 865-874.



# Lista Completa delle Pubblicazioni Scientifiche ("peer-reviewed")

1. **Bueti, D.**, Buonomano, D.V. Temporal Perceptual Learning (in press). *Timing and Time Perception*.
2. Salvioni, P., Murray, M.M., Kalmbach, L., **Bueti, D.** (2013). How the visual brain encodes and keeps track of time, *J Neurosci*. 33, 12423-12429
3. Binetti, N., Siegler, I., **Bueti, D.\***, Doricchi, F.\* (2013). Adaptive tuning of perceptual timing to vestibular stimulation. *Neuropsychologia*, 51,197-210 - special issue on 'Time processing' doi:10.1016/j.neuropsychologia.2012.10.029. \*Equal contribution.
4. Spierer, L., Manuel, A., **Bueti, D.**, Murray, M.M. (2013). Contributions of pitch and bandwidth to sound-induced enhancement of visual cortex excitability in humans. *Cortex* doi:10.1016/j.cortex.2013.01.001
5. **Bueti, D.**, Lasaponara, S., Cercignani M., Macaluso, E. (2012). Learning about time: Plastic Changes and Individual Brain Differences. *Neuron*, 75, 725-737.
6. Aiello, M., Courtois, S.J., Merola, S., Ottaviani, T., Tomaiuolo, F., **Bueti, D.**, Rossetti, Y., Doricchi, F. (2012). No inherent left and right side in human "mental number line": evidence from right brain damage. *Brain*. 135, 2492-2505.
7. **Bueti, D.** (2011). The sensory representation of time. *Front Integr Neurosci* 5, 34.
8. **Bueti, D.**, and Macaluso, E. (2011). Physiological correlates of subjective time: evidence for the temporal accumulator hypothesis. *Neuroimage* 57, 1251-1263.
9. Kanai, R., Lloyd, H., **Bueti, D.**, Walsh, V. (2011). Modality-independent role of the primary auditory cortex in time estimation. *Exp Brain Res* 209, 465-471.
10. Kalla, R., Muggleton, N., Spiegel, R., **Bueti, D.**, Claassen, J., Walsh, V., Bronstein, A. (2011). Adaptive motion processing in bilateral vestibular failure. *J Neurol Neurosurg Psychiatry* 82, 1212-1216.
11. Rusconi, E., **Bueti, D.**, Walsh, V., Butterworth, B. (2011). Contribution of frontal cortex to the spatial representation of number. *Cortex* 47, 2-13.
12. **Bueti, D.**, Bahrami, B., Walsh, V., Rees, G. (2010). Encoding of temporal probabilities in the human brain. *J Neurosci* 30, 4343-4352.
13. **Bueti, D.**, and Walsh, V. (2010). Memory for time distinguishes between perception and action. *Perception* 39, 81-90.
14. **Bueti, D.**, and Macaluso, E. (2010). Auditory temporal expectations modulate activity in visual cortex. *Neuroimage* 51, 1168-1183.
15. Binetti, N., Siegler, I.A., **Bueti, D.**, Doricchi, F. (2010). Time in motion: effects of whole-body rotatory accelerations on timekeeping processes. *Neuropsychologia* 48, 1842-1852.
16. **Bueti, D.**, and Walsh, V. (2009). The parietal cortex and the representation of time, space, number and other magnitudes. *Philos Trans R Soc Lond B Biol Sci* 364, 1831-1840.
17. Rusconi, E., **Bueti, D.**, Riello, M. Walsh, V., Butterworth, B. (2008). Where numerical cognition interacts with spatial attention. *Brain Stimulation: Basic, Translational, and Clinical Research in Neuromodulation*, 1, 316-317, doi:10.1016/j.brs.2008.06.184.
18. **Bueti, D.**, van Dongen, E.V., Walsh, V. (2008). The role of superior temporal cortex in auditory timing. *PLoS ONE* 3, e2481.
19. **Bueti, D.**, Walsh, V., Frith, C., Rees, G. (2008). Different brain circuits underlie motor and perceptual representations of temporal intervals. *J Cogn Neurosci* 20, 204-214.
20. **Bueti, D.**, Bahrami, B., Walsh, V. (2008). Sensory and association cortex in time perception. *J Cogn Neurosci* 20, 1054-1062.
21. Doricchi, F., Guariglia, P., Figliozzi, F., Silvetti, M., Gasparini, M., Merola, S., Macci, E., Binetti, N., Bruschini, M., **Bueti, D.** (2008). No reversal of the Oppenheimer-Kundt illusion with short stimuli: confutation of the space anisometry of neglect and 'cross-over' in line bisection. *Brain* 131, e94; author reply e95



22. Costantini, M., **Bueti, D.**, Pazzaglia, M., Aglioti, S.M. (2007). Temporal dynamics of visuo-tactile extinction within and between hemispaces. *Neuropsychology* 21, 242-250.
23. Avenanti, A., **Bueti, D.**, Galati, G., Aglioti, S.M. (2005). Transcranial magnetic stimulation highlights the sensorimotor side of empathy for pain. *Nat Neurosci* 8, 955-960.
24. **Bueti, D.**, Costantini, M., Forster, B., Aglioti, S.M. (2004). Uni- and cross-modal temporal modulation of tactile extinction in right brain damaged patients. *Neuropsychologia* 42, 1689-1696.
25. **Bueti, D.**, Moro, V., Aglioti, S.M. (2001). Aspetti spazio-temporali dell'estinzione unimodale e crossmodale tattile in pazienti cerebrolesi destri. *Giornale Italiano di Psicologia* 28, 865-874.



# Curriculum Vitae

di

**Laura Sanità**

## Assistant Professor

Combinatorics & Optimization Department  
University of Waterloo  
200 University Ave. W  
Waterloo, Ontario  
Canada, N2L 3G1

### Informazioni Personali

- Data di nascita: 24 giugno 1981
- Nazionalità: Italiana
- Indirizzo: 1605-11 Margaret Avenue, Kitchener, ON, N2H 6M4  
Canada
- Tel: +1 519 888 4567 x 31395
- Email: [laura.sanita@uwaterloo.ca](mailto:laura.sanita@uwaterloo.ca)
- Web page: <http://www.math.uwaterloo.ca/~lsanita>

### Posizioni ricoperte

- Gennaio 2012 - Presente: Assistant Professor, Department of Combinatorics & Optimization, University of Waterloo
- Febbraio 2009 - Agosto 2011: Postdoctoral fellow, Discrete Optimization Group (Chair: Prof. Friedrich Eisenbrand), Institute of Mathematics, Ecole Polytechnique Federale de Lausanne, Switzerland

- Maggio 2007 - Luglio 2007: Early-Stage Researcher (Adonet short-term position per studenti di dottorato), University of Cologne, Germany

## Riconoscimenti

- Co-vincitrice del Best Paper Award alla conferenza “Symposium on Theory of Computing” (STOC) 2010
- Il lavoro [5] è stato selezionato come “notable article in computing in 2013” e incluso nella lista “Best of 2013” stipulata da: Association for Computing Machinery (ACM) Computing Reviews'
- I lavori in [5,23] sono stati inclusi in due recenti libri di testo nell'area di algoritmi di approssimazione:
  - *The Design of Approximation Algorithms* by David P. Williamson, David B. Shmoys, Cambridge University Press, 2011
  - *Iterative Methods in Combinatorial Optimization* by Lap Chi Lau, R. Ravi, Mohit Singh, Cambridge University Press, 2011
- Il lavoro [5] (versione estesa del lavoro [23]) è stato pubblicato come articolo invitato su una delle più importanti riviste nell'area di informatica teorica: *Journal of the ACM*
- Membro del Program Committee per le conferenze internazionali “ESA 2014” (22nd European Symposium on Algorithms) e “WAOA 2014” (12th Workshop on Approximation and Online Algorithms).
- Direttrice del comitato “Women in Math” dell'università di Waterloo (da Giugno 2013)

## Fondi di ricerca

Titolare dei seguenti fondi di ricerca:

- \$110,000 per il periodo 2012-2017. Fonte: Natural Sciences and Engineering Research Council, Canada (NSERC)



- \$30,000 per il periodo 2012-2013. Fonte: start-up funds of the Faculty of Mathematics, University of Waterloo

## **Studi**

- Gennaio 2009: Dottorato di ricerca in Ricerca Operativa, Università Sapienza di Roma. Tesi: Robust Network Design.
- Ottobre 2005: Laurea Specialistica in Ingegneria Gestionale, Università di Roma Tor Vergata.
- Luglio 2003: Laurea Triennale in Ingegneria Gestionale, Università di Roma Tor Vergata.

## **Profilo professionale e interessi di ricerca**

- Ho conseguito la Laurea Specialistica in Ingegneria Gestionale nel 2005 presso l'università di Roma Tor Vergata, e il Dottorato in Ricerca Operativa nel Gennaio 2009 presso l'università Sapienza di Roma, sotto la supervisione del Prof. Gianpaolo Oriolo.

Ho lasciato l'Italia nel Febbraio del 2009 per prendere una posizione come PostDoc presso il dipartimento di matematica dell'EPFL, in Svizzera, nel gruppo del Prof. Friedrich Eisenbrand.

In seguito, a Gennaio 2012 mi sono trasferita in Canada, dove attualmente ho una posizione di tenure-track Assistant Professor nella facoltà di matematica dell'università di Waterloo.

- I miei interessi di ricerca riguardano principalmente l'ottimizzazione combinatoria e algoritmi. Il mio lavoro su algoritmi approssimati per un problema di disegno di reti ha ricevuto il Best Paper Award alla conferenza "Symposium on Theory of Computing" (STOC) 2010. Sono altresì interessata a problemi applicati di Ricerca Operativa, e in particolare a problemi di ottimizzazione del traffico su reti di trasporto e comunicazione. In quest'ambito, ho collaborato con compagnie di telecomunicazioni sviluppando un metodo che è stato brevettato da Ericsson Lab Italy.



## **Attività di ricerca**

- Referee per le seguenti riviste internazionali: Mathematical Programming series A and B, SIAM Journal on Discrete Mathematics, Operations Research Letters, Discrete Applied Mathematics, European Journal on Operational Research, Informations Processing Letters.
- Referee per le seguenti conferenze internazionali: ACM Symposium on the Theory of Computing (STOC), Symposium on Discrete Algorithms (SODA), Integer Programming and Combinatorial Optimization conference (IPCO), European Symposium on Algorithms (ESA), International Conference on Algorithms and Complexity (CIAC), Workshop on Approximation and Online Algorithms (WAOA), International Computing and Combinatorics Conference (COCOON), International conference on Fun with Algorithms (FUN), International Symposium on Combinatorial Optimization (ISCO), International Network Optimization Conference (INOC), International Workshop on Algorithms and Computation (WALCOM), Scandinavian Symposium and Workshops on Algorithm Theory (SWAT).
- Membro del comitato organizzativo del Workshop on Flexible Network Design 2013, Fields Institute, Toronto (Canada).
- Membro del comitato organizzativo per la conferenza IPCO 2010.
- Progetti di ricerca in collaborazione con le seguenti compagnie di telecomunicazioni:
  - Ericsson Lab Italy s.p.a via Anagnina 203, 00040 Morena (RM), Italy (negli anni 2005-2009)
  - CoRiTeL (Research Consortium in Telecommunications) via Anagnina 203, 00040 Morena (RM), Italy (negli anni 2005-2009)
  - Membro della rete di eccellenza: EURO-NGI (anni 2005-2006), EURO-FGI (anni 2006-2008).

## **Pubblicazioni**

**Nota:** Come da consuetudine nel mio settore, gli autori dei lavori appaiono in ordine alfabetico (con l'eccezione di [11] e [30]).

I nomi in grassetto indicano co-autori che erano studenti al tempo della sottomissione. I nomi sottolineati evidenziano i lavori scritti con i miei supervisori (di dottorato o postdottorato).

Pubblicazioni

Numero

Articoli scientifici

27

Altro

5

**Totale**

**32**

Pubblicazioni indipendenti

23 (su 32)

*Articoli su riviste internazionali*

- **Adrian Bock**, Karthekeyan Chandrasekaran, Jochen Koenemann, Britta Peis, Laura Sanità. Finding small stabilizers for unstable graphs, 20 pagine. Accettato per la pubblicazione sulla rivista *Mathematical Programming* ad Agosto 2014. (Versione estesa del lavoro in [15])
  
- **Adrian Bock**, Laura Sanità. *The capacitated orienteering problem*, 17 pagine. Accettato per la pubblicazione sulla rivista *Discrete Applied Mathematics* a Giugno 2014.
  
- Marco di Summa, David Pritchard, Laura Sanità. Finding the Closest Ultrametric, 14 pagine. Accettato per la pubblicazione sulla rivista *Discrete Applied Mathematics* a Giugno 2014.
  
- Jack Edmonds, Laura Sanità. Exponentiality of the exchange algorithm for finding another room-partitioning, *Discrete Applied Mathematics*, Volume 164, Part 1, Pagine 86-91, 2014. (Versione estesa del lavoro in [24])
  
- Jaroslaw Byrka, Fabrizio Grandoni, Thomas Rothvoss, Laura Sanità. Steiner Tree approximation via iterative randomized rounding, *Journal of the ACM*, Volume 60 Issue 1, 33 pagine, 2013. (Versione estesa del lavoro in [23])
  
- **Nicolai Haehnle**, Laura Sanità, Rico Zenklusen. Stable routing and unique-max coloring on trees, *SIAM Journal on Discrete Mathematics*, 27(1), pagine 109-125, 2013.
  
- Gianpaolo Oriolo, Laura Sanità, Rico Zenklusen. Network design with a discrete set of traffic matrices, *Operations Research Letters*, Volume 41, Issue 4, pagine 390-396, 2013.
  
- **Adrian Bock**, **Elyot Grant**, Jochen Koenemann, Laura Sanità. The School Bus Problem on Trees, *Algorithmica*, volume 67 (1), pagine 49-64, 2013. (Versione estesa del lavoro in [20])

- Fabrizio Grandoni, Thomas Rothvoss, Laura Sanità. From Uncertainty to Non-Linearity: Solving Virtual Private Network via Single-Sink Buy-at-Bulk, *Mathematics of Operations Research*, Volume 36, No. 2, pagine 185-204, 2011.
- Samuel Fiorini, Gianpaolo Oriolo, Laura Sanità, Dirk Oliver Theis. The VPN problem with concave costs, *SIAM Journal on Discrete Mathematics*, Volume 24, Issue 3, pagine 1080-1090, 2010.
- Fabrizio Grandoni, Gaia Nicosia, Gianpaolo Oriolo, Laura Sanità. Stable Routing under the Spanning Tree Protocol, *Operations Research Letters*, Volume 38, Issue 5, pagine 399-404, 2010.
- Roberto Sabella, Paola Iovanna, Gianpaolo Oriolo, Laura Sanità. Fine protection of data paths in multi-layer network based on the GMPLS paradigm, *Optical Switching and Networking*, 5, pagine 159-169, 2008.

*Articoli su proceedings di conferenze internazionali*

- **Guru Guruganesh**, Laura Sanità, Chaitanya Swamy. Improved Region Growing and Combinatorial Algorithms for k-route Cut Problems, 20 pagine. Accettato per la pubblicazione nei proceedings della conferenza *Symposium on Discrete Algorithms (SODA) 2015*.
- Andreas Feldmann, Neil Olver, Jochen Koenemann, Laura Sanità. On the Equivalence of the Bidirected and Hypergraphic Relaxations for Steiner Tree, proceedings della conferenza *International Workshop on Approximation Algorithms for Combinatorial Optimization Problems (APPROX 2014)*, pagine 176-191, 2014.
- **Adrian Bock**, Karthekeyan Chandrasekaran, Jochen Koenemann, Britta Peis, Laura Sanità. Finding small stabilizers for unstable graphs, proceedings della conferenza *Integer Programming and Combinatorial Optimization (IPCO 2014)* pagine 150-161, 2014.

- Jochen Koenemann, **Sina Sadeghian**, Laura Sanità. *An LMP  $O(\log n)$ -, Approximation Algorithm for Node Weighted Prize Collecting Steiner Tree*, proceedings della conferenza *Annual IEEE Symposium on Foundations of Computer Science (FOCS)*, pagine 568-577, 2013.
- Jochen Koenemann, **Sina Sadeghian**, Laura Sanità. *Better Approximation Algorithms for Technology Diffusion*, proceedings della conferenza *European Symposium on Algorithms (ESA)*, pagine 637-646, 2013.
- Thomas Rothvoss, Laura Sanità. *0/1 Polytopes with quadratic Chvatal rank*, proceedings della conferenza *Integer Programming and Combinatorial Optimization (IPCO)*, LNCS Volume 7801, 2013, pagine 349-361.
- **Adrian Bock**, Laura Sanità. *On the approximability of two capacitated vehicle routing problems*, proceedings della conferenza *International Network Optimization Conference (INOC) 2013*, ENDS Volume 41, pagine 519-526.
- **Adrian Bock**, **Elyot Grant**, Jochen Koenemann, Laura Sanità. *The School Bus Problem on Trees*, proceedings della conferenza *International Symposium on Algorithms and Computation (ISAAC)*, LNCS Volume 7074, 2011, pagine 10-19.
- Friedrich Eisenbrand, Naonori Kakimura, Thomas Rothvoss, Laura Sanità. *Set covering with ordered replacement -- Additive and multiplicative gaps*, proceedings della conferenza *Integer Programming and Combinatorial Optimization (IPCO)*, LNCS Volume 6655, pagine 170-182, 2011.
- Christoph Buchheim, Frauke Liers, Laura Sanità. *An exact algorithm for robust network design*, proceedings della conferenza *International Network Optimization Conference (INOC) 2011*, LNCS Volume 6701, pagine 7-17.

- Jaroslaw Byrka, Fabrizio Grandoni, Thomas Rothvoss, Laura Sanità. An improved LP-based approximation for Steiner Tree, proceedings della conferenza *ACM Symposium on Theory of Computing (STOC)*, pagine 583-592, 2010.
- Jack Edmonds, Laura Sanità. On finding another room-partitioning of the vertices, proceedings della conferenza *International Symposium on Combinatorial Optimization (ISCO)*, Electronic Notes in Discrete Mathematics 36, 2010, pagine 1257-1264.
- Jaroslaw Byrka, Andreas Karrenbauer, Laura Sanità. The interval constrained 3-coloring problem, proceedings della conferenza *9th Latin American Theoretical Informatics Symposium (LATIN)*, LNCS Volume 6034, pagine 591-602, 2010.
- **Thomas Rothvoss**, Laura Sanità. On the complexity of the asymmetric VPN problem, proceedings della conferenza *International Workshop on Approximation Algorithms for Combinatorial Optimization Problems (APPROX)* 2009, LNCS Volume 5687, pagine 326-338, 2009.
- Paola Iovanna, Gaia Nicosia, Gianpaolo Oriolo, Laura Sanità, **Ezio Sperduto**. Local restoration for trees and arborescences, proceedings della conferenza *International Workshop on Traffic Management and Traffic Engineering for the Future Internet (FITraME)* 2008, LNCS Volume 5464, pagine 130-140.

## Tesi

- Laura Sanità. Robust Network Design, Tesi di dottorato, Università Sapienza di Roma, Gennaio 2009.  
(La ricerca svolta nella tesi è stata pubblicata nei lavori [7][10][11][27])

- Laura Sanità. Protection strategies for new generation optical networks, Tesi di laurea specialistica, Università di Roma Tor Vergata, Ottobre 2005.  
(La ricerca svolta nella tesi è stata pubblicata nel lavoro [12] e nel brevetto [30])

### *Brevetti*

- Laura Sanità, Gianpaolo Oriolo, Paola Iovanna, Roberto Sabella. Communication Network, Patent, Numero di Pubblicazione: WO2009106153A1 (3 Settembre 2009) e US20110176438 A1 (21 Luglio 2011). Brevetto assegnato ad Ericsson.

### *Manoscritti sottomessi per la pubblicazione*

- Thomas Rothvoss, Laura Sanità. 0/1 Polytopes with quadratic Chvatal rank, 20 pagine. Sottomesso per la pubblicazione sulla rivista *Operations Research*. (Versione estesa del lavoro [18]).
- **Hossein Efsandiari**, Mohammad Hajiaghiy, Jochen Koenemann, Hamid Mahini, David Malec, Laura Sanità. Approximate Deadline-Scheduling with Precedence Constraints, 12 pagine. Sottomesso per la pubblicazione sui proceedings della conferenza ACM *Symposium on Theory of Computing (STOC) 2016*.

### **Seminari invitati**

- *Finding small stabilizers for unstable graphs*  
- Industrial Optimization seminar series, Fields Institute, (Toronto, Canada), 2013

- *0/1 Polytopes with quadratic Chvatal rank*
- Eastern Great Lakes Theory of Computing Workshop 2012 (Buffalo, USA)
- *Set covering with ordered replacement*
- Mixed Integer Programming Workshop 2011 (Waterloo, Canada)

## **Didattica**

- Docente del corso *Deterministic OR Models* CO370, University of Waterloo (Anno: 2014)
- Docente del corso *Approximation Algorithms* CO754, University of Waterloo (Anno: 2014)
- Docente del corso *Introduction to Optimization* CO250, University of Waterloo (Anni: 2012 e 2013)
- Docente del corso *Combinatorial Optimization* CO450 – CO650, University of Waterloo (Anni: 2012 e 2013)
- Docente del corso *Network Design*, Ecole Polytechnique Federale de Lausanne (Semestre autunnale 2009)
- Docente del corso *Advanced methods for network optimization*, Università di Roma "Tor Vergata" (Trimestre invernale 2008)
- Docente del corso *Network Design and Optimization*, Università di Roma "Tor Vergata" (Trimestre invernale 2006)

## **Studenti**

### Progetti di ricerca semestrali

- Guru Guruganesh (Undergraduate Research Assistant) – 2012



I risultati di questo progetto di ricerca sono oggetto di un articolo [13] che è stato accettato per la pubblicazione sui proceedings della conferenza *SODA 2015*.

- Miaolan Xie (Undergraduate Research Assistant) – 2013

#### Master's students

- Arash Hadadan – da Settembre 2013.

- Jaixin Liu (2012-2014) – in co-supervisione (50%) con il Prof. Stan Dimitrov.

I risultati della sua tesi di laurea sono stati presentati all'ultimo INFORMS annual meeting ad Ottobre 2013.

- Sina Sadeghian (2012-2013) – in co-supervisione (50%) con il Prof. Jochen Koenemann.

I risultati della sua tesi di laurea sono oggetto di due articoli: [17] pubblicato sui proceedings della conferenza *ESA*, e [13] pubblicato su proceedings della conferenza *FOCS*.

- Sezin Afsar (2010-2011) – in co-supervisione (50%) con il Prof. Friedrich Eisenbrand.

#### Visiting Ph.D. Students

- Adrian Bock – visiting PhD Student per due mesi nel 2012.

Il lavoro insieme è oggetto di diversi articoli: [15] pubblicato sui proceedings della conferenza *IPCO*, [8] pubblicato sulla rivista *Algorithmica*, [19] pubblicato sui proceedings della conferenza *INOC*, e [1] accettato per la pubblicazione sulla rivista *Discrete Applied Mathematics*.

- Hamideh Hosseinzadeh – visiting PhD Student per 4 mesi nel 2014.

#### Postdoctoral Fellow

- Andreas Feldman – in co-supervisione (33%) con i professori Jochen Koenemann e Chaitanya Swamy – da Gennaio 2013.

Il lavoro insieme è oggetto dell'articolo [13], pubblicato sui proceedings della conferenza *APPROX 2014*.

- Umang Bhaskar – in co-supervisione (33%) con i professori Jochen Koenemann e Chaitanya Swamy – da Ottobre 2014.



## Short Curriculum Vitae et Studiorum of Frank S. Marzano

- Full address:** Prof. Frank S. Marzano  
DIET Dept. of Information Engineering, Electronics and Telecom. - Sapienza University of Rome  
Via Eudossiana 18 – 00184 Rome, Italy  
CETEMPS Centre of Excellence on Remote Sensing and Hydro-meteorology - University of L'Aquila  
Via Vetoio, 67010, L'Aquila, Italy
- Position:** Associate professor, Sapienza University of Rome, Italy  
Director, Centre of Excellence CETEMPS, University of L'Aquila, Italy  
Fellow, Royal Meteorological Society, UK  
Vice-President, IEEE Geoscience and Remote Sensing Central Italy Chapter (GRSS-29)  
President, Didactic Area of Electronic Engineering, Sapienza University of Rome
- E-mail:** frank.marzano@uniroma1.it, frank.marzano@aquila.infn.it, fsmarzano@ieee.org  
**Http:** www.diet.uniroma1.it; cetemps.aquila.infn.it; 151.100.120.244/personale/marzano
- Phone numbers:** +39.06.44585847 (work)  
+39.06.44585918 (fax)  
+39.320.4357254 (cell.)
- Education:** 1988 Laurea degree *cum laude* in Electronic Engineering, Sapienza University of Rome, Italy  
1993 Doctorate in Applied Electromagnetics, Sapienza University of Rome, Italy
- Research:** Satellite remote sensing of the environment (rain, temperature, water vapor, humidity, cloud liquid, ash)  
Remote sensing sensors (weather radar, wind profiler radar, microwave radiometer, infrared radiometer)  
Radar remote sensing of the atmosphere (rain, wind velocity, ash, spatial-temporal fields, polarimetry)  
Electromagnetic wave propagation (turbulence, clouds and precipitation, microwave, millimeter-wave)  
Inverse problems in remote sensing (statistical techniques, neural-network methods, physical methods)  
Radio-propagation for satellite telecommunications (rain fading, scintillation, prediction model, noise)  
Optical propagation in free space (turbulence, fog, aerosol, precipitation, channel modeling)
- Teaching:**
- |                                        |                                                        |
|----------------------------------------|--------------------------------------------------------|
| Antennas                               | Fac. di Ingegneria, Sapienza University of Rome, Italy |
| Radiopropagation and radar meteorology | Fac. di Ingegneria, Sapienza University of Rome, Italy |
| > <i>Past assignments:</i>             |                                                        |
| Radiopropagation                       | Fac. di Ingegneria, Sapienza University of Rome, Italy |
| Electromagnetic propagation            | Fac. di Ingegneria, Sapienza University of Rome, Italy |
| Antennas II and radar meteorology      | Fac. di Ingegneria, Sapienza University of Rome, Italy |
| Antennas II                            | Fac. di Ingegneria, Sapienza University of Rome, Italy |
| Antennas I                             | Fac. di Ingegneria, Sapienza University of Rome, Italy |
| Remote sensing of the atmosphere       | Fac. di Scienze MFN, Univ. of L'Aquila, Italy          |
| Antennas and microwaves                | Fac. di Ingegneria, Univ. of L'Aquila, Italy           |
| Electromagnetic fields                 | Fac. di Ingegneria, Univ. of L'Aquila, Italy           |
- Bibliometry:**
- |                                                          | Based on SCOPUS, update on Sept. 2014 | Score | Full Prof. Median (ING-INF/02) |
|----------------------------------------------------------|---------------------------------------|-------|--------------------------------|
| - n. of normalized papers (2003-2013):                   |                                       | 80    | 30                             |
| - n. of total citations, normalized to the academic age: |                                       | 57.74 | 21.14                          |
| - H-index contemporary:                                  |                                       | 14    | 8                              |
| - n. of journal papers (2003-2013):                      |                                       | 103   |                                |
| - n. of total citations:                                 |                                       | 1328  |                                |
| - H-index:                                               |                                       | 19    |                                |

**Biography.** He was born on May 3, 1963 in Jersey City (NJ, USA). He received the Laurea degree (*cum laude*) in Electrical Engineering (1988) and the Ph.D. degree (1993) in Applied Electromagnetics both from the Sapienza University of Rome, Italy. In 1992 he was a visiting scientist at Florida State University, Tallahassee, FL. During 1993 he collaborated with the Institute of Atmospheric Physics, National Council of Research (CNR), Rome, Italy. From 1994 till 1996, he was with the Italian Space Agency, Rome, Italy, as a post-doctorate researcher. After being a lecturer at the University of Perugia, Italy, in





1997 he joined the Department of Electrical Engineering, University of L'Aquila, Italy teaching courses on electromagnetic fields as Assistant Professor. In 1999 he was at Naval Research Laboratory, Monterey, CA, as a visiting scientist. In 1999 he was at Naval Research Laboratory, Monterey, CA, as a visiting scientist.

In 2002 he got the qualification to Associate Professorship and has co-founded Centre of Excellence on Remote Sensing and Hydro-meteorology (CETEMPS) of the University of L'Aquila, becoming the head of the Satellite and Radar Remote Sensing Laboratory (which he still coordinates). In 2005 he finally joined the Dept. of Electronic Engineering, now Dept. of Information Engineering, Electronics and Telecommunications (DIET), Sapienza University of Rome, Italy where he presently teaches courses on antennas, propagation and remote sensing. In 2006 he was nominated President of the *HIMET* company, L'Aquila and Rome, Italy. Since 2007 he has been acting as vice-director of the CETEMPS Centre of Excellence of the University of L'Aquila and nominated Director of CETEMPS on March 2013.

**Research.** His current research concerns passive and active remote sensing of the atmosphere from ground-based, airborne, and space-borne platforms, with a particular focus on clouds and precipitation using microwave, millimeter-wave and visible-infrared data, development of inversion methods, radiative transfer modeling of absorbing and scattering media, radar meteorology for rain, wind and ash retrieval and synthetic aperture radar data processing for atmospheric and land-use applications. He is also deeply involved in electromagnetic propagation studies, including e.m. field scintillation and rain fading modeling, data analysis along satellite microwave and millimeter-wave links and free space optical links.

He is a member of the Executive Board of the Centre of Excellence in Remote Sensing and Hydro-Meteorology (CETEMPS) in L'Aquila (Italy), the CIMA Research Foundation in Savona (Italy), the Centre of Research on Hydro-geological Risk (CERI) in Colferro (Rome, Italy) and the Centre of Research in Aerospace Sapienza (CRAS).

Within 2001-2005 he was the Italian national delegate for the European COST actions n. 720 and n. 280; since 2008 he is the national delegate for the 5-year European COST Action project ES702 "EGCliMet" and COST Action project IC0802 "PropTNEO". Since 2010 he is a member of the European Volcanic Ash Cloud Expert Group (EVACEG) and since 2011 he is the national vice-delegate for the 5-year European COST Action project IC1101 "OpticWISE" and co-chairman of its physical modeling working group. In 2009 he became a member of the Science team of the Global Precipitation Mission (GPM) and in 2012 he has been nominated member of EuMetSat Precipitation Science Advisory Group (P-SAG) and PostEP MWI-ICI Science Advisory Group (MWI-ICI SAG).

**Publications.** Dr. Marzano has published more than 120 papers on refereed international Journals, edited 7 journal special issues, 15 contributions to international Book Chapters, more than 260 Extended Abstracts on international Conference Proceedings and more than 150 Short Abstracts in national and international conferences. He is the Editor, together with G. Visconti, of the book *"Remote sensing of atmosphere and ocean from space: models, instruments and techniques"*, Kluwer Acad. Pub., Dordrecht (NL), 2002 and together with D. Cimini and G. Visconti of the book *"Integrated Ground-Based Observing Systems Applications: for Climate, Meteorology, and Civil Protection"*, Springer-Verlag (Berlin, D). In 2010-13 he has been Section Editor of the Springer's *"Encyclopedia of Remote Sensing"*, published in 2014. He co-published a university textbook on *"Antennas foundation and electromagnetic radiation"*, Carocci 2011 (IT) in Italian.

He is a reviewer for the major international journals in remote sensing and radiopropagation (e.g., IEEE Trans. Geosci. Rem. Sens., IEEE Ant. Propag., IEE Ant. Propog., AGU Radio Sci., AMS J. Appl. Meteor., AMS J. Atm. Science, AMS J. Ocean. Atm. Tech). In 2005 and 2007 he has been Guest Co-Editor of the MicroRad04 and MicroRad06 Special Issues for IEEE Trans. Geosci. Rem. Sensing. In 2012-13 he has acted as a Guest Editor of the special issue on tropospheric profiling for EGU Atmospheric Measurement Techniques (AMT).

From January 2004 till June 2014 he has been acting as an *Associated Editor* of IEEE Geoscience Remote Sensing Letters (GRSL) and since mid 2014 he is *Associated Editor* of IEEE Transactions on Geoscience and Remote Sensing (TGRS). Since 2011 he is also Associate Editor of EGU Atmospheric Measurement Techniques (AMT) journal.

> A list of peer-reviewed publications since 1993 is reported in the Appendix A of this CVS.

**Organization.** In 2000 Dr. Marzano was the director of the first edition of the International Summer School on Atmospheric and Oceanic Sciences (ISSAOS), held in L'Aquila and now at its 13<sup>th</sup> edition. In 2004 he has been appointed Co-Director of the Fourth Hydro-meteorological Radar School held during the 6<sup>th</sup> EGS Plinius Conference. He has been the Co-chairman of the Workshop on "Integrated Ground-Based Remote Sensing Stations for Atmospheric Profiling" held in L'Aquila on 19-21 June 2002, the Co-chairman of the Congress "Specialist Meeting on Microwave Radiometry and Remote sensing Applications (MicroRad'04)", held in Roma on 24-27 Feb. 2004 and the Co-chairman of the 8<sup>th</sup> Management Committee of the project meeting COST-280 on fade impairment techniques, held in Roma on 4-5 Nov. 2004. Dr. Marzano is a current member of the Technical Program Committees of the Microwave Radiometry and Remote Sensing Applications (MicroRad), the International Geoscience And Remote Sensing Symposium (IGARSS) and the European Radar Conference (ERAD). In 2008 he has been nominated Italian delegate within the European COST project ES0702 "EG-ClimNet" and the COST project IC0802 "PropTNEO". Since 2010 he is a member of the European Volcanic Ash Cloud Expert Group (EVACEG). In 2011 he has been nominated national vice-delegate within the COST project IC1101 "OpticWiSE". He is the Co-Chairman of the 9<sup>th</sup> International Symposium of Tropospheric Profiling (ISTP9), to be held in L'Aquila (Italy) on 7-9 Sept. 2012. In 2013 he was the director of 13<sup>th</sup> ISSOAS-2013 international summer school on "Weather forecasting: from science to public", held in



L'Aquila (Italy) on 9-13 Sept. 2013. Since June 2013 he is the *President* of the Didactic Area of Electronic Engineering, Sapienza University of Rome with more than 800 enrolled students.

**Teaching.** Dr. Marzano has been teaching at the University of L'Aquila, University of Perugia and at the Sapienza University of Rome courses on Electromagnetic Fields, Antennas, Propagation and Remote sensing of the Atmosphere. He has been tutor of more than 120 undergraduate students, more than 50 graduate students and 19 Ph.D. students. Since June 2013 he has been acting as *President* of the Didactic Area of Electronic Engineering at Sapienza University of Rome.

He has been a member of the Doctorate in Electrical and Information Engineering of the University of L'Aquila, the Doctorate in Environmental Monitoring of the University of Basilicata and is currently member of the Doctorate in ICT Radar and Remote Sensing of the Sapienza University of Rome. Dr. Marzano has been a lecturer on remote sensing techniques and wave propagation in several National and International Conferences and Schools.

**Projects.** Since 1991 Dr. Marzano has been participating to several international research projects (e.g., GPCP-AIP-2, GPCP-AIP3, NASA-PIP2, NASA-PIP3, EU-COST-712, EU-COST-255, and recently EU-COST-ES0702 in 2008, EU-COST-IC802 in 2008), European-Union funded projects (e.g., STORM within 3th EU-FP in 1990, MEFEE within 3th EU-FP 1993, EuroTRMM within 4th EU-FP in 1996, EuRAINSAT within 5th EU-FP in 1999, RiskAWARE within INTERREG III-B CADSES in 2004, HydroRad within the 7th EU-FP in 2009), and ESA-funded research studies related to meteorological satellite missions (e.g., DMSP, TRMM, ENVISAT, MSG, and recently SAR-Metawave and Wband-Deep-Space in 2008). He was involved within the ENVISAT calibration team in 2001 and Co-PI within Italian Space Agency (ASI), Italian National Research Council (CNR), Department of Civil Protection (DPC) and EUMETSAT research projects (e.g., SatPrecip with ASI in 1999, Scatterometry within ASI in 2000, MeditRain within ASI in 2000, RAM within GNDICI-CNR in 2003, Eurainsat-MSG within EUMETSAT in 2005, Proscenio within DPC in 2006). He has been principal investigator of the IDRA project within DPC since 2007-2012, FLORAD satellite mission with ASI in 2008, HYDRORAD project within EC FP7 calls in 2009-2011, HYDREX within EC FP/ MarieCurie call since 2010-2012, ADRIARadNet within IPA-Adriatic call). He is also a consultant of national engineering companies, international agencies and Italian ministries, involved in design and evaluation of information engineering and remote sensing systems.

In particular, from 2001 till 2006 he has been acting as the Italian national delegate for European COST Action n. 720 on "Integrated ground-based remote sensing stations for Atmospheric profiling" and COST Action n. 280 on "Propagation impairment mitigation for millimeter wave radio systems". In 2002 he contributed to the planning and design of the new national radar network within a project of the Italian Dept. of Civil Protection and since then he is a member of the Italian Technical Committee on the National Radar Network. Since 2006 he the principal investigator (PI) of the 3+3 year IDRA project about hydro-meteorological modeling and radar meteo-volcanology, sponsored by the National Department of civil Protection (DPC), Rome, Italy and renewed on 2009 till 2012. Since 2006 he is president of the HIMET spin-off company, L'Aquila (Italy) focused on high innovation in meteorology and environmental technology. Since 2006 he is also PI for CETEMPS of the 9-year Region Abruzzo project (L'Aquila, Italy) about regional civil protection support to hydro-geological risk decision. Since 2008 he is the Italian national delegate for the 5-year European COST Action project n. ES702 on the "European Ground-based observations of essential variables for CLimate and operational METeorology (EGCliMet)" and COST Action 5-year project n. IC0802 on "Propagation tools and data for integrated Telecommunication, Navigation and Earth Observation systems". In 2008 he coordinated as Principal Investigator the Phase-A feasibility study of the satellite constellation small-mission FLORAD project about the exploitation of Flower elliptical-orbit constellations for tropospheric profiling at regional scale, funded by the Italian Space Agency (ASI) and involving the major information-technology Italian industries. Since 2009 he is PI of the 2-year RainXSAR project, sponsored by the Italian Space Agency (ASI) and AtmoXSAR, sponsored by German Aerospace Agency (DLR, Germany) on atmospheric effects upon X-SAR measurements. In 2009 he has become member of Science Team of the NASA-JAXA Global Precipitation Measuring (GPM) mission with a proposal on "MicroRainSAR: Precipitation retrieval from X-band synthetic aperture radar (SAR) constellation over land at micro-alpha scale". In 2009 he coordinated the 2-year European project HYDRORAD with 3 small-medium Commitmentprises and 4 European partners from Italy, Greece and Cyprus about the exploitation of low-cost X-band polarimetric mini-radar networks. In 2010 he was coordinator of the biannual European Marie Curie project HYDREX about X-band radar hydro-meteorology. In 2011 he has been nominated national vice-delegate for the European COST project n. IC1101 on "Wireless Optical Communication". Since January 2012 he is member of the Precipitation Science Advisory Group (P-SAG) of EuMetSat and in 2013 member of PostEPS MWI-ICI Science Advisory Group (SAG). In 2012-15 he was the coordinator of the 2.5-year European project ADRIARadNet, involving 7 European partners from Italy, Croatia and Albania, about the development of hydrometeorological data decision support systems in the Adriatic basin.

> A detailed list of funded projects is reported in the Appendix B of this CVS.

**Honours.** Dr. Marzano was the recipient of a fellowship award from Elettronica S.p.A. (Rome, Italy) for researches on microwave radiometry in 1990. In 1993 he received the Young Scientist Award of XXIV General Assembly of the International Union of Radio Science (URSI). In 1998 he was the recipient of the Alan Berman Publication Award (ARPAD) from the Naval Research Laboratory, Washington, DC. Since 2003 he is a Senior Member of the Institute of Electrical and Electronic Engineers (IEEE) and of the IEEE Geoscience and Remote Sensing Society, since 2000 a member of the Italian





Society of Electromagnetism (SIEm) and since 2010 a member of European Association on Antennas and Propagation (EurAAP). Since 2005 he has been the Secretary and then vice-Chair of the IEEE GRS-Chapter n. 21 South-Central Italy. In 2008 he received the Best Paper Award from the EGU-Plinius2008 Conference (Nicosia, Cyprus), whereas in 2009 he received the Best Paper Awards from the European Conference on Antennas and Propagation (EuCAP2009), held in Berlin (Germany). In 2011 he received the Best Presentation Award from the EGU-Plinius2011 Conference (Savona, Italy). In 2012 he has been nominated Fellow of the Royal Meteorological Society (RMetS). He is also member of Amnesty International (Rome, Italy), World Wild Fund (Rome, Italy), "Medici Senza Frontiere" (Rome, Italy) and "Save The Children" Association (Rome, Italy).

## APPENDIX A. LIST OF FUNDED PROJECTS

|                  |           |                                                                                                                                                                                                                                                                                                                                            |
|------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CNR-Estremi      | 2000-2001 | Research-unit coordinator DIEL-UNIVAQ (Studio di eventi estremi; Commitment: CNR-GNDICI, Italy; Project coordinator: A. Mugnai; Funds: 50 MLire/2years)                                                                                                                                                                                    |
| FP5-EuRainSat    | 2001-2003 | Research-unit coordinator DIEL-UNIVAQ (European satellite rainfall analysis monitoring at the geostationary scale; Commitment: EC-FP5, European Commission; Project coordinator: V. Levizzani; Funds: 120 kEu/3 years)                                                                                                                     |
| MURST-CETEMPS    | 2001-2004 | Research-unit coordinator of Remote Sensing Lab. (CETEMPS: Integrazione di tecniche di telerilevamento e modellistica numerica per la previsione di eventi meteorologici estremi; Commitment: MURST, Italy; Project coordinator: G. Visconti; Funds: 600 kEu/3years)                                                                       |
| ASI-Mare         | 2001-2002 | Research-unit coordinator DIEL-UNIVAQ (Telerilevamento del mare mediante scatterometro: modelli elettromagnetici, inversione dei dati ed applicazione a modelli di circolazione; Commitment: ASI, Italy; Project coordinator: M. Migliaccio; Funds: 37.5 kEu/2years)                                                                       |
| ASI-MeditRain    | 2002-2004 | Research-unit coordinator DIEL-UNIVAQ (Spaceborne remote sensing of rainfall in the Mediterranean basin; Commitment: ASI, Italy; Project coordinator: A. Mugnai; Funds: 56 kEu/2years)                                                                                                                                                     |
| CNR-RAMI         | 2003-2004 | Research-unit coordinator DIEL-UNIVAQ (RAMI: Ricerca applicata in Meteo-idrologia; Commitment: CNR-GNDICI, Italy; Project coordinator: G. Roth; Funds: 72 kEu/2years)                                                                                                                                                                      |
| IntReg-RiskAWARE | 2004-2006 | Research-unit coordinator CETEMPS-UNIVAQ (RiskAWARE: Risk analysis and weather hydrometeorological alarming by inter-regional experiments; Commitment: Interreg IIIB CADSES, European Commission; Project coordinator: P.P. Alberoni; Funds: 215 KEu/3 years)                                                                              |
| CIMA-Proscenio   | 2005-2007 | Research-unit coordinator DIE-Sapienza (Proscenio: Progetti di protezione civile: applicazioni di radar meteorologia; Commitment: CIMA, Italy; Project coordinator: F. Siccardi; Funds: 120 kEu/3years)                                                                                                                                    |
| DPC-IDRA         | 2006-2009 | <b>Project coordinator</b> and Research-unit coordinator CETEMPS (IDRA: Integrazione di Dati di Rilevamento Atmo-idro-sferico; Commitment: DPC, Italy; Project coordinator: F.S. Marzano; Funds: 750 kEu/3years)                                                                                                                           |
| ASI-WAVE         | 2006-2006 | Research-unit coordinator DIE-Sapienza (WAVE: W-band and V-band space communication experiment; Commitment: ASI-UniTOV, Italy; Project coordinator: M. Ruggeri; Funds: 6 kEu/1year)                                                                                                                                                        |
| RegAB-CFA        | 2007-2016 | <b>Project coordinator</b> and Research-unit coordinator CETEMPS (CFA: supporto tecnico-scientifico al Centro funzionale di Protezione civile della Regione Abruzzo; Commitment: Region Abruzzo, Italy; Project coordinator: F.S. Marzano; Funds: 300 kEu /1year x 9 years)                                                                |
| MIUR-Aeroclouds  | 2005-2008 | Research-unit coordinator CETEMPS (Aeroclouds: Monitoraggio aereo dell'atmosfera; Commitment: MIUR e CNR, Italy; Project coordinator: C. Tomasi; Funds: 60 kEu /3years)                                                                                                                                                                    |
| ASI-FloRad       | 2006-2006 | <b>Project coordinator</b> and Research-unit coordinator DIE-Sapienza (FLORAD: Costellazione FLOreale micro-satellitare di RADiometri in banda millimetrica per l'Osservazione della Terra e dello Spazio a scala regionale, Commitment: ASI, Italy; Contract n. DC-PRZ-2007-002; Project coordinator: F.S. Marzano; Funds: 700 kEu/1year) |
| Sapienza- XCen   | 2007-2007 | <b>Project coordinator</b> and Research-unit coordinator DIE-Sapienza (XCen: Radar meteorologia a microonde: modelli di inversione per applicazioni vulcanologiche; Commitment: Sapienza UniRoma, Italy; Project coordinator: F.S. Marzano; Funds: 2.5 kEu /1year)                                                                         |





|                    |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ASI-Nowcasting     | 2008-2011 | Research-unit coordinator DIE-Sapienza (Nowcasting: atmospheric monitoring and prediction by spaceborne remote sensing and numerical models; Commitment: ASI e CNR, Italy; Project coordinator: F. Prodi; Funds: 60 kEu/3years)                                                                                                                                                                                                                       |
| Sapienza-Xcen2     | 2009-2009 | <b>Project coordinator</b> and Research-unit coordinator DIE-Sapienza (XCen2: Radar vulcanologia in banda X: applicazione di metodi fisico-statistici; Commitment: Sapienza UniRoma, Italy; Project coordinator: F.S. Marzano; Funds: 5 kEu /1year)                                                                                                                                                                                                   |
| DPC-IDRA2          | 2009-2012 | <b>Project coordinator</b> and Research-unit coordinator CETEMPS (IDRA2: Integrazione di Dati di Rilevamento Atmo-idro-sferico 2° ciclo; Commitment: DPC, Italy; Project coordinator: F.S. Marzano; Funds: 750 kEu/3years)                                                                                                                                                                                                                            |
| FP7-HydroRad       | 2009-2011 | <b>Project coordinator</b> and Research-unit coordinator HIMET (HydroRad: Integrated advanced distributed system for hydro-meteorological monitoring and forecasting using low-cost high-performance X-band mini-radar and cellular network infrastructures, Research call for SMEs Call 2 Call identifier FP7-SME-2008-1. Project GA n. 232156; Commitment: EC-FP7, European Commission; Project coordinator: F.S. Marzano; Funds: 1100 kEu /2years) |
| FP7-HydrEx         | 2010-2012 | <b>Project coordinator</b> and Research-unit coordinator DIET-Sapienza: (HydrEx: Advancing small-scale hydro-meteorological predictions through mobile X-band dual-polarization radar systems: methods, algorithms and applications, Call: FP7-PEOPLE-2008-2-1-IEF, Project GA n. 236871; Commitment: EC-FP7 Marie Curie Intra-European Fellowships (IEF), European Commission; Project coordinator: F.S. Marzano; Funds: 186 kEu /2years)            |
| Sapienza-SARWat    | 2011-2011 | <b>Project coordinator</b> and Research-unit coordinator DIET-Sapienza: (SARWat. Obiettivo: Telerilevamento spaziale di precipitazioni e inondazioni mediante radar ad apertura sintetica: modelli, metodi e applicazioni; Commitment: Sapienza UniRoma, Italy; Project coordinator: F.S. Marzano; Funds: 35 kEu /1year)                                                                                                                              |
| AFL-HiRadProp      | 2012-2014 | <b>Project coordinator</b> and Research-unit coordinator DIET-Sapienza (HiRadProp: High-frequency modeling and prediction of tropospheric radiopropagation parameters from ground-based multi-channel radiometric measurements between Ka and W band; Commitment: AFL-EOARD, USA; Project coordinator: F.S. Marzano; Funds: 190 kEu /3years)                                                                                                          |
| IPA-ADRIARadNet    | 2012-2015 | <b>Project coordinator</b> and Research-unit coordinator CETEMPS (ADRIARadNet: ADRIatic integrated RADAR-based and web-oriented information processing system NETwork to support hydro-meteorological monitoring and civil protection decision, Call: IPA Adriatic Cross-border Cooperation Programme 2007-2013, Project GA n. 0231; Commitment: EC-IPA, European Commission; Project coordinator: F.S. Marzano; Funds: 2811 kEu /2years)             |
| FP7-APHORISM       | 2013-2016 | Research-unit coordinator DIET-Sapienza (APHORISM: ADRIatic integrated RADAR-based and web-oriented information processing system NETwork to support hydro-meteorological monitoring and civil protection decision, Call for proposals FP7-SPA-2013.1.1-07. Project GA n. 606738; Commitment: EC-FP7, European Commission; Project coordinator: F.S. Marzano; Funds: 1100 kEu /2years)                                                                |
| Sapienza- TexTILEs | 2014-2015 | <b>Project coordinator</b> and Research-unit coordinator DIET-Sapienza (TexTILEs: Technology Evaluation for X-band Three-dimensional Integrate, Lightweight and Economical radar systems for Earth observation; Commitment: Sapienza UniRoma, Italy; Project coordinator: F.S. Marzano; Funds: 12 kEu /1.5years)                                                                                                                                      |
| ESA-RadioMetOP     | 2013-2014 | <b>Project co-coordinator</b> and Research-unit coordinator CRAS-Sapienza (RadioMetOP: Improving Data Return in Ka Band by Use of Weather Forecast - Radio-METeorological Operations Planner at Ka band); Project n. HSO-GS/2365/ML; Commitment: ESA-ESOC, Germany; Project coordinator: L. Iess and F.S. Marzano; Funds: 83 kEu /1year)                                                                                                              |
| FP7-Earth2Observe  | 2014-2017 | Research-unit coordinator DIET-Sapienza (Earth2Observe: Global Earth Observation for integrated water resource assessment, Call for Proposal FP7-ENV-2013-two-stage. Project GA n. 603608; Commitment: EC-FP7, European Commission; Project coordinator: F.S. Marzano; Funds: 328.6 kEu /4years)                                                                                                                                                      |



## APPENDIX B. LIST OF PEER-REVIEWED PUBLICATIONS

### A) Publications on International journals (with revision and ISSN codes):

- [A.1] d'Auria G., F.S. Marzano, and U. Merlo, "Model for estimating the refractivity structure constant in intermittent clear air", *Appl. Opt.*, ISSN: 0003-6935, vol. 32, pp. 2674-2680, **1993**.
- [A.2] Basili P., P. Ciotti, G. d'Auria, F.S. Marzano, N. Pierdicca, and P. Quarto, "Assessment of polarimetric features to discriminate land cover from Maestro-1 Experiment", *Int. J. Remote Sens.*, ISSN: 0143-1161, vol. 15, pp. 2887-2899, **1994**.
- [A.3] Turk J., J. Vivekanandan, F.S. Marzano, R. Spencer, and R.E. Hood, "Active and passive remote sensing of precipitating storms during CaPE. Part I: Advanced Microwave Precipitation Radiometer and polarimetric radar measurements and models", *Meteor. Atmospheric Physics*, ISSN: 0177-7971, vol. 54, pp. 3-27, 1994.
- [A.4] Marzano F.S., A. Mugnai, E.A. Smith, X. Xiang, J. Turk, and J. Vivekanandan, "Active and passive remote sensing of precipitating storms during CaPE. Part II: Intercomparison of precipitation retrievals from AMPR radiometer and CP-2 radar", *Meteor. Atmospheric Physics*, ISSN: 0177-7971, vol. 54, pp. 29-51, 1994.
- [A.5] Basili P., P. Ciotti, G. d'Auria, F.S. Marzano, and N. Pierdicca, "Use of spaceborne multispectral microwave radiometry for precipitation remote sensing", *Alta Freq.*, ISSN: 1120-1908, vol. 6, pp. 109-111, 1994.
- [A.6] Marzano F.S. and G. d'Auria, "Estimation of intermittent scintillation on microwave links from meteorological data", *Alta Freq.*, ISSN: 1120-1908, vol. 6, pp. 94-96, 1994.
- [A.7] Ciotti P., P. Basili, G. d'Auria, F.S. Marzano, and N. Pierdicca, "Microwave radiometry of the atmosphere: an experiment from a sea-based platform during ERS-1 altimeter calibration", *Int. J. Remote Sens.*, ISSN: 0143-1161, vol. 16, pp. 2341-2356, **1995**.
- [A.8] Pierdicca P. and F.S. Marzano, "Observing storm clouds by space-borne multifrequency microwave radiometers", *Earth Observ. Quart.*, ISSN: 0256-596X, vol. 49, pp. 7-12, 1995.
- [A.9] Levizzani V., F. Porcù, F.S. Marzano, A. Mugnai, E.A. Smith, and F. Prodi, "Investigating a SSM/I microwave algorithm to calibrate METEOSAT infrared instantaneous rainrate estimates", *Meteor. Applications*, ISSN: 1350-4827, vol. 3, pp. 5-17, **1996**.
- [A.10] Pierdicca N., F.S. Marzano, G. d'Auria, P. Basili, P. Ciotti, and A. Mugnai, "Precipitation retrieval from spaceborne microwave radiometers using maximum a posteriori probability estimation", *IEEE Trans. Geosci. Remote Sens.*, ISSN: 0196-2892, vol. 34, pp. 831-846, 1996.
- [A.11] Boni G., M. Conti, S. Dietrich, L. Lanza, F.S. Marzano, A. Mugnai, G. Panegrossi, and F. Siccardi, "Multisensor observations during the event of November 4-6, 1994 over Northern Italy", *Rem. Sens. Review*, ISSN: 0275-7257, DOI:10.1080/02757259609532314, vol. 14, pp. 91-117, 1996.
- [A.12] Peeters G., F.S. Marzano, G. d'Auria, C. Riva, and D. Vanhoenacker-Janvier, "Evaluation of statistical models for clear-air scintillation using Olympus satellite measurements", *Int. J. Satell. Commun.*, ISSN: 0737-2884, vol. 15, pp. 73-88, **1997**.
- [A.13] Panegrossi G., S. Dietrich, F.S. Marzano, A. Mugnai, E.A. Smith, X. Xiang, G.J. Tripoli, P.K. Wang, and J.P.V. Poiars Baptista, "Use of cloud model microphysics for passive microwave-based precipitation retrieval: significance of consistency between model and measurement manifolds", *J. Atmos. Sci.*, ISSN: 0022-4928, vol. 55, pp. 1644-1673, **1998**.
- [A.14] Turk J., F.S. Marzano, and A. Mugnai, "Effects of degraded sensor resolution upon passive microwave precipitation retrievals of tropical rainfall", *J. Atmos. Sci.*, ISSN: 0022-4928, vol. 55, pp. 1689-1705, 1998.
- [A.15] Smith E.A., J. Lamm, R. Adler, J. Alihouse, K. Aonashi, E. Barrett, P. Bauer, W. Berg, A. Chang, R. Ferraro, J. Ferriday, S. Goodman, N. Grody, C. Kidd, C. Kummerow, G. Liu, F.S. Marzano, A. Mugnai, W. Olson, G. Petty, A. Shibata, R. Spencer, F. Wentz, T.T. Wilheit, and E. Zipser, "Results of WetNet PIP-2 project", *J. Atmos. Sci.*, ISSN: 0022-4928, vol. 55, pp. 1483-1536, 1998.
- [A.16] d'Auria G., F.S. Marzano, N. Pierdicca, R. Pinna Nossai, P. Basili, and P. Ciotti, "Remotely sensing cloud properties from microwave radiometric observations by using a modeled cloud database", *Radio Sci.*, ISSN: 0048-6604, vol. 33, pp. 369-392, 1998.
- [A.17] Marzano F.S. and G. d'Auria, "Model-based prediction of amplitude scintillation variance due to clear-air tropospheric turbulence on earth-satellite microwave links", *IEEE Trans. Antennas Propagat.*, ISSN: 0018-926X, vol. 46, pp. 1506-1518, 1998.
- [A.18] Marzano F.S., A. Mugnai, G. Panegrossi, N. Pierdicca, E.A. Smith, and J. Turk, "Bayesian estimation of precipitating cloud parameters from combined measurements of spaceborne microwave radiometer and radar", *IEEE Trans. Geosci. Remote Sens.*, ISSN: 0196-2892, vol. 37, pp. 596-613, **1999**.
- [A.19] Marzano F.S., C. Riva, A. Banich, and F. Clivio, "Assessment of model-based scintillation variance prediction on long-term basis using Italsat satellite measurements", *Int. J. Satell. Commun.*, ISSN: 0737-2884, vol. 17, pp. 17-36, 1999.
- [A.20] Marzano F.S., E. Fionda, and P. Ciotti, "Simulation of radiometric and attenuation measurements along earth-satellite links in the 10- to 50- GHz band through horizontally-finite convective raincells", *Radio Sci.*, ISSN: 0048-6604, vol. 34, pp. 841-858, 1999.
- [A.21] Marzano F.S. and C. Riva, "Evidence of long-term correlation between clear-air scintillation and attenuation in microwave and millimeter-wave satellite links", *IEEE Trans. Antennas Propagat.*, ISSN: 0018-926X, vol. 47, pp. 1749-1757, 1999.
- [A.22] Bauer P., A. Khain, I. Sednev, R. Meneghini, C. Kummerow, and F.S. Marzano, "Combined cloud-microwave radiative transfer modeling of stratiform rainfall", *J. Atmos. Sci.*, ISSN: 0022-4928, vol. 57, pp. 1082-1104, **2000**.
- [A.23] Pierdicca N., F.S. Marzano, L. Guerriero, and P. Pampaloni, "On the effect of atmospheric emission upon passive microwave polarimetric response of azimuthally anisotropic sea surface", *J. Electromag. Waves Appl. - PIER*, ISSN: 1559-8985, vol. 14, pp. 355-358, 2000.







- [A.24] Marzano F.S., L. Roberti, and A. Mugnai, "Impact of incoherent backscattering upon radar echoes above 10 GHz", *Phys. and Chem. of the Earth – Part B*, ISSN: 1474-7065, vol. 25, n. 10-12, pp. 943–948, 2000.
- [A.25] Marzano F.S. and P. Bauer, "Sensitivity analysis of airborne microwave retrieval of stratiform precipitation to the melting layer parameterization", *IEEE Trans. Geosci. Remote Sensing*, ISSN: 0196-2892, vol. 39, pp. 75-91, **2001**.
- [A.26] Marzano F.S., J. Turk, P. Ciotti, S. Di Michele, and N. Pierdicca, "Potential of combined spaceborne microwave and infrared radiometry for near real-time rainfall attenuation monitoring along earth-satellite links", *Int. J. Satell. Commun.*, ISSN: 0737-2884, vol. 19, n. 4, pp. 385-412, 2001.
- [A.27] Pierdicca N., P. Castracane, P. Basili, P. Ciotti, and F.S. Marzano, "Discrimination of land cover from a multiparameter SAR data set", *Il Nuovo Cimento C*, ISSN: 2037-4909, vol. 24, pp. 25-40, 2001.
- [A.28] Basili P., S. Bonafoni, P. Ciotti, F.S. Marzano, G. d'Auria, and N. Pierdicca, "Retrieving atmospheric temperature profiles from microwave radiometers using *a priori* information on spatial-temporal correlation", *IEEE Trans. Trans. Geosci. Remote Sens.*, ISSN: 0196-2892, vol. 39, pp. 1896-1905, 2001.
- [A.29] Smith E.A., P. Bauer, F.S. Marzano, C.D. Kummerow, D. McKague, A. Mugnai and G. Panegrossi, "Intercomparison of microwave radiative transfer models for precipitating clouds", *IEEE Trans. Geosci. Remote Sens.*, ISSN: 0196-2892, vol. 40, pp. 541-549, **2002**.
- [A.30] Marzano F.S., E. Fionda, P. Ciotti and A. Martellucci, "Ground-based multi-frequency microwave radiometry for rainfall remote sensing", *IEEE Trans. Geosci. Rem. Sens.*, ISSN: 0196-2892, vol. 40, pp. 742-759, 2002.
- [A.31] Bauer P., J.F. Mahfouf, W.S. Olson, F.S. Marzano, S. Di Michele, A. Tassa, and A. Mugnai, "Error analysis of TMI rainfall estimates over ocean for variational data assimilation", *Quart. J. Roy. Meteor.*, ISSN: 0035-9009, vol. 128, pp. 2129-2144, 2002.
- [A.32] Pulvirenti L., N. Pierdicca, F.S. Marzano, P. Castracane and G. d'Auria, "A Physical-Statistical Approach to Match Satellite Passive Microwave Retrieval to the Mediterranean climatology", *IEEE Trans. Geosci. Rem. Sens.*, ISSN: 0196-2892, vol. 40, n. 4, pp. 2271-2284, 2002.
- [A.33] Marzano F.S. and C. Riva, "Cloud-induced effects on long-term amplitude scintillation along millimeter-wave slant paths", *IEEE Trans. Antennas Propagat.*, ISSN: 0018-926X, vol. 51, n. 4, pp. 880-887, **2003**.
- [A.34] Marzano F.S. and L. Roberti, "Numerical investigation of intense rainfall effects on coherent and incoherent slant-path propagation at K band and above", *IEEE Trans. Antennas Propagat.*, ISSN: 0018-926X, vol. 41, n. 5, pp. 965-977, 2003.
- [A.35] Marzano F.S., L. Roberti, Di Michele S, A. Tassa, and A. Mugnai, "Modeling of apparent radar reflectivity due to convective clouds at attenuating wavelengths", *Radio Sci.*, ISSN: 0048-6604, vol. 38, n. 1, 1002-1002.16, doi:10.1029/2002RS002613, 2003.
- [A.36] Tassa A., S. Di Michele, A. Mugnai, F.S. Marzano, and P. Poiars Baptista, "Cloud-model based Bayesian technique for precipitation profile retrieval from TRMM Microwave Imager", *Radio Sci.*, ISSN: 0048-6604, vol. 38, n.4, pp. 8074-8074.13, doi:10.1029/2002RS002674, 2003.
- [A.37] Di Michele S., F.S. Marzano, A. Tassa, A. Mugnai, and P. Poiars Baptista, "Physically-based statistical integration of TRMM microwave measurements for precipitation profiling", *Radio Sci.*, ISSN: 0048-6604, vol. 38, n. 4, pp. 8072-8072.17, doi:10.1029/2002RS002636, 2003.
- [A.38] Marzano F.S. and G. Ferrauto, "Relation between the radar equation and the first-order backscattering theory", *Atmos. Chem. Phys.*, ISSN: 1680-7316, vol. 3, pp. 813–821, 2003.
- [A.39] Tapiador, F. J., C. Kidd, V. Levizzani, and F.S. Marzano, "A neural networks-based PMW-IR fusion technique to derive half hourly rainfall estimates at 0.1° resolution", *J. Appl. Meteor.*, ISSN: 0894-8763, vol. 43, pp. 576-594, **2004**.
- [A.40] Marzano F.S., E. Picciotti and G. Vulpiani, "Rain field and reflectivity vertical profile reconstruction from C-band radar volumetric data", *IEEE Trans. Geosci. Rem. Sens.*, ISSN: 0196-2892, vol. 42, n. 4, pp. 1033-1046, 2004.
- [A.41] Marzano F.S., M. Palmacci, G. Giuliani, D. Cimini, and J. Turk, "Multivariate statistical integration of satellite infrared and microwave radiometric measurements for rainfall retrieval at the geostationary scale", *IEEE Trans. Geosci. Rem. Sens.*, ISSN: 0196-2892, vol. 42, n. 4, pp. 1018-1032, 2004.
- [A.42] Tapiador F.J., C. Kidd, K.L. Hsu, and F.S. Marzano, "Neural Networks in Satellite Rainfall Estimation", *Meteorological Applications*, ISSN: 1350-4827, DOI:10.1017/S1350482704001173, vol. 11, pp 83-91, 2004.
- [A.43] Tapiador F.J., C. Kidd, V. Levizzani, and F.S. Marzano, "A Maximum Entropy Approach to Satellite Quantitative Precipitation Estimation (QPE)", *Int. J. of Remote Sensing*, ISSN: 0143-1161, DOI: 10.180/01431160410001710000, vol. 25, pp. 4629–4639, 2004.
- [A.44] Pierdicca N., L. Pulvirenti, F.S. Marzano, G. d'Auria, P. Basili, and P. Ciotti, "Intercomparison of inversion algorithms to retrieve rain-rate from SSM/I by using an extended validation set over the Mediterranean area", *IEEE Trans. Geosci. Rem. Sens.*, ISSN: 0196-2892, vol. 42, n.10, pp. 2226-2239, 2004.
- [A.45] Vulpiani G., F.S. Marzano, V. Chandrasekar and R. Uijlenhoet, "Model-based iterative approach to polarimetric radar rainfall estimation in presence of path attenuation", *Adv. in Geosci.*, ISSN: 1680-7340, vol. 2, p. 51-57, **2005**.
- [A.46] Ferretti R., C. Faccani, D. Cimini, F.S. Marzano, A. Memmo, L. Cucurull, and R. Pacione, "Simulations of deep convection in the Mediterranean area using 3DVAR of conventional and non-conventional data", *Adv. in Geosci.*, vol. 2, pp. 65-71, 2005.
- [A.47] Marzano F.S., D. Cimini, P. Ciotti and R. Ware, "Modeling and measurements of rainfall by ground-based multispectral microwave radiometry", *IEEE Trans. Geosci. Rem. Sens.*, ISSN: 0196-2892, vol. 43, pp. 1000-1011, 2005.
- [A.48] Di Michele S., A. Tassa, A. Mugnai, F.S. Marzano, P. Bauer and J.P.V. Poiars Baptista, "Bayesian Algorithm for Microwave-based Precipitation Retrieval: description and application to TMI measurements over ocean", *IEEE Trans. Geosci. Rem. Sens.*, ISSN: 0196-2892, vol. 43, pp. 778-791, 2005.





- [A.49] Faccani C., D. Cimini, R. Ferretti, F.S. Marzano, and A.C. Taramasso, "3DVAR assimilation of SSM/I data over the sea for the IOP2 MAP case", *Adv. in Geosci.*, ISSN: 1680-7340, vol. 2, p. 229-235, 2005.
- [A.50] Fornasiero A., P.P. Alberoni, G. Vulpiani and F.S. Marzano, "Reconstruction of reflectivity vertical profiles and data quality control for C-band radar rainfall estimation", *Adv. in Geosci.*, ISSN: 1680-7340, vol. 2, pp. 209-215, 2005.
- [A.51] Bianco L., D. Cimini, F.S. Marzano and R. Ware, "Combining microwave radiometer and wind profiler radar measurements for high-resolution atmospheric humidity profiling", *J. Atm. Oceanic Tech.*, ISSN: 0739-0572, vol. 22, n. 7, pp. 949-965, 2005.
- [A.52] Marzano F.S., D. Cimini, and R. Ware, "Monitoring of rainfall by ground-based passive microwave systems: models, measurements and applications", *Adv. in Geosci.*, ISSN: 1680-7340, vol. 2, pp. 259-265, 2005.
- [A.53] Marzano F.S., D. Cimini, E. Coppola, M. Verdecchia, V. Levizzani, F. Tapiador and J. Turk, "Satellite radiometric remote sensing of rainfall fields: multi-sensor retrieval techniques at geostationary scale", *Adv. in Geosci.*, ISSN: 1680-7340, vol. 2, pp. 267-272, 2005.
- [A.54] Marzano F.S. and G. Ferrauto, "Generalized Eddington analytical model of azimuthally-dependent radiance simulation in stratified media", *Appl. Opt.*, ISSN: 0003-6935, vol. 44, n. 28, pp. 6032-6048, 2005.
- [A.55] Vulpiani G., F.S. Marzano, V. Chandrasekar and S. Lim, "Constrained Iterative Technique with Embedded Neural-Network for Dual-Polarization Radar Correction of Rain Path Attenuation", *IEEE Trans. Geosci. Rem. Sensing*, ISSN: 0196-2892, vol. 43, pp. 2305-2314, 2005.
- [A.56] Tassa A., S Di Michele., A. Mugnai, F.S. Marzano, P. Bauer and J.P.V. Poiras Baptista, "Modelling errors associated to passive microwave precipitation retrieval: evaluation of a case study", *IEEE Trans. Geosci. Rem. Sens.*, ISSN: 0196-2892, vol. 44, pp. 78-89, **2006**.
- [A.57] Marzano F.S., G. Vulpiani and W.I. Rose, "Microphysical characterization of microwave radar reflectivity due to volcanic ash clouds", *IEEE Trans. Geosci. Rem. Sens.*, ISSN: 0196-2892, vol. 44, pp. 313-327, 2006.
- [A.58] Rivolta G., F.S. Marzano, E. Coppola, and M. Verdecchia, "Artificial neural-network technique for precipitation nowcasting from satellite imagery", *Adv. in Geosci.*, ISSN: 1680-7340, vol. 7, pp. 97-103, 2006.
- [A.59] Marzano F.S., D. Scaranari, M.Celano, P.P. Alberoni, G. Vulpiani, and M. Montopoli, "Hydrometeor classification from dual-polarized weather radar: extending fuzzy logic from S-band to C-band data", *Adv. in Geosci.*, ISSN: 1680-7340, vol. 7, 109-114, 2006
- [A.60] Memmo A., C. Faccani, R. Ferretti, S. Di Michele, and F.S. Marzano, "Evaluation of radiative transfer schemes for mesoscale model data assimilation: a case study", *Adv. in Geosci.*, ISSN: 1680-7340, vol. 7, pp. 193-198, 2006.
- [A.61] Marzano F.S., E. Fionda, and P. Ciotti, "A neural network approach to precipitation intensity and extinction retrieval by ground-based passive microwave technique", *J. Hydrology*, ISSN: 0022-1694, DOI: 10.1016/j.hydrol.2005.11.42, vol. 328, pp. 121-131, 2006.
- [A.62] Cimini D., T.J. Hewison, L. Martin, J. Güldner, C. Gaffard and F.S. Marzano, "Temperature and humidity profile retrievals from ground-based microwave radiometers during TUC", *Meteorologische Zeitschrift*, ISSN: 0941-2948, DOI: 10.1127/0941-2948/2006/0099, vol. 15, n. 5, pp. 45-56, 2006.
- [A.63] Marzano F.S., "Modeling antenna noise temperature due to rain clouds at microwave and millimeter-wave frequencies", *IEEE Trans. Antennas and Propagat.*, ISSN: 0018-926X, vol. 54, pp. 1305-1317, 2006.
- [A.64] Montopoli M., F.S. Marzano, G.Vulpiani, A. Fornasiero, P.P.Alberoni, L. Ferraris and N. Rebora, "Spatial characterization of raincell horizontal profiles from C-band radar measurements at mid-latitude", *Adv. in Geosci.*, ISSN: 1680-7340, vol. 7, pp. 285-292, 2006.
- [A.65] Vulpiani G., F.S. Marzano, V. Chandrasekar, A. Berne, and R. Uijlenhoet, "Rainfall rate retrieval in presence of path attenuation using C-band polarimetric weather radars ", *Nat. Hazards and Earth Syst. Sciences*, ISSN: 1561-8633, vol. 6, pp. 439-450, 2006.
- [A.66] Vulpiani G., F.S. Marzano, V. Chandrasekar, R. Uijlenhoet and A. Berne, "Polarimetric weather radar retrieval of raindrop size distribution by means of a regularized artificial neural network", *IEEE Trans. Geosci. Rem. Sensing*, ISSN: 0196-2892, vol. 44, n. 11, pp. 3262-3275, 2006.
- [A.67] Marzano F.S., S. Barbieri, G. Vulpiani and W.I. Rose, "Volcanic cloud retrieval by ground-based microwave weather radar", *IEEE Trans. Geosci. Rem. Sens.*, ISSN: 0196-2892, vol. 44, n.11, pp. 3235-3246, 2006.
- [A.68] Pierdicca N., L. Pulvirenti and F.S. Marzano, "A model to predict cloud liquid density from mid-latitude atmospheric soundings from a cloud-resolving numerical simulation", *Radio Sci.*, ISSN: 0048-6604, DOI: 10.1029/2006RS003463, vol. 41, pp. 1-12, 2006.
- [A.69] Pulvirenti L., F.S. Marzano, and N. Pierdicca, "Modeling microwave fully-polarimetric passive observations of a sea surface: a neural network approach", *IEEE Trans. Geosci. Rem. Sensing*, ISSN: 0196-2892, vol. 45, n. 7, pp. 2098-2117, **2007**.
- [A.70] Montopoli M. and F.S. Marzano, "Maximum likelihood retrieval of modeled raincell patterns from mid-latitude C-band weather radar", *IEEE Trans. Geosci. Rem. Sensing*, ISSN: 0196-2892, vol. 45, n. 7, pp. 2403-2416, 2007.
- [A.71] Marzano F.S., "Predicting antenna noise temperature due to rain clouds at microwave and millimeter-wave frequencies", *IEEE Trans. Antennas and Propagat.*, ISSN: 0018-926X, vol. 55, n. 7, pp. 2022-2031, 2007.
- [A.72] Faccani C., D. Cimini, F.S. Marzano and R. Ferretti, "Three-dimensional variational assimilation of Special Sensor Microwave/Imager data on mesoscale weather prediction model: a case study ", *Q. J. R. Meteorol. Soc.*, ISSN: 0035-9009, vol. 133, pp. 1295-1307, 2007.
- [A.73] Marzano F.S., D. Scaranari, and G. Vulpiani, "Supervised fuzzy-logic classification of hydrometeors using C-band dual-polarized radars", *IEEE Trans. Geosci. Rem. Sensing*, ISSN: 0196-2892, n. 45, pp. 3784-3799, 2007.
- [A.74] Marzano F.S., G. Rivolta, E. Coppola, B. Tomassetti and M. Verdecchia, "Rainfall Nowcast from Multi-Satellite Passive Sensor Images using Recurrent Neural Network", *IEEE Trans. Geosci. Rem. Sensing*, ISSN: 0196-2892, n. 45, pp. 3800-3812, 2007.





- [A.75] Marzano F.S., D. Scaranari, G. Vulpiani and M. Montopoli, "Supervised classification and estimation of hydrometeors using C-band dual-polarized radars: a Bayesian approach", *IEEE Trans. Geosci. Rem. Sensing*, ISSN: 0196-2892, n. 46, pp. 85-98, **2008**.
- [A.76] Weinman J.A. and F.S. Marzano, "An exploratory study to derive rainfall over land from spaceborne synthetic aperture radars", *J. Appl. Meteor. and Climatology*, ISSN: 1558-8424, vol. 47, n. 2., pp. 562-575, 2008.
- [A.77] Montopoli M., F.S. Marzano and G. Vulpiani, "Analysis and synthesis of rainfall time series using disdrometer data", *IEEE Trans. Geosci. Rem. Sensing*, ISSN: 0196-2892, vol. 46, n. 2, pp. 466-478, 2008.
- [A.78] Pulvirenti L., N. Pierdicca and F.S. Marzano, "Topographic effects on the surface emission of a mountainous area observed by a spaceborne radiometer", *Sensors*, ISSN: 1424-8220, vol. 8, pp. 1459-1474, 2008.
- [A.79] Vulpiani G., P. Tabary, J. Parent Du Chatelet and F.S. Marzano, "Comparison of Advanced Radar Polarimetric Techniques for Operational Attenuation Correction at C Band", *J. Atm. Oceanic Tech.*, ISSN: 0739-0572, vol. 25, pp. 1118-1135, 2008.
- [A.80] Visconti G. and F.S. Marzano, "The situation of meteorology in Italy: an independent overview", *Bullettin Am. Met. Soc. (BAMS)*, ISSN: 0003-0007, DOI: 10.1175/2008BAMS2372.1, pp. 1279-1284, September 2008.
- [A.81] Montopoli M., F.S. Marzano, G. Vulpiani, M.N. Anagnostou, and E.N. Anagnostou, "Statistical characterization and modeling of raindrop spectra time series for different climatological regions", *IEEE Trans. Geosci. Rem. Sensing*, ISSN: 0196-2892, vol. 46, pp. 2778-2787, 2008.
- [A.82] Anagnostou M.N., E.N. Anagnostou, G. Vulpiani, Montopoli M., F.S. Marzano, and J. Vivekanandan, "Evaluation of X-band polarimetric radar estimates of drop size distributions from coincident S-band polarimetric estimates and measured raindrop spectra", *IEEE Trans. Geosci. Rem. Sensing*, ISSN: 0196-2892, vol. 46, pp. 3067-3075, 2008.
- [A.83] Pulvirenti L., N. Pierdicca and F.S. Marzano, "Coupling a Neural Network-Based forward Model and a Bayesian Inversion Approach to Retrieve Wind Field from Spaceborne Polarimetric Radiometers", *Sensors*, ISSN: 1424-8220, vol. 8, pp. 7850-7865, 2008.
- [A.84] Marzano F.S. and J.A. Weinman, "Inversion of Spaceborne X-Band Synthetic Aperture Radar Measurements for Precipitation Remote Sensing Over Land", *IEEE Trans. Geosci. Rem. Sensing*, ISSN: 0196-2892, vol. 46, pp. 3472-3487, 2008.
- [A.85] Verdecchia M., E. Coppola, C. Faccani, R. Ferretti, A. Memmo, M. Montopoli, G. Rivolta, T. Paolucci, E. Picciotti, A. Santacasa, B. Tomassetti, G. Visconti and F.S. Marzano, "Flood forecast in complex orography using coupled high-resolution atmospheric and distributed hydrological models with in-situ and remote sensing data integration", *Meteorology and Applied Physics*, ISSN: 0177-7971, DOI: 10.1007/s00703-007-0278-z, vol. 101, n. 3-4, pp. 267-285, 2008.
- [A.86] Weinman J.A., F.S. Marzano, W.J. Plant, A. Mugnai, and N. Pierdicca, "Rainfall Observation from X-band, Space-borne, Synthetic Aperture Radar", *Natural Hazards and Earth System Sciences*, ISSN: 1561-8633, vol. 9, pp 77-84, **2009**.
- [A.87] Vulpiani G., S. Giangrande and F.S. Marzano, "Rainfall estimation from polarimetric S-band radar measurements: Validation of a neural network approach", *J. Appl. Meteor. and Climat.*, ISSN: 1558-8424, vol. 48, pp. 2022-2036, 2009.
- [A.88] Marzano F.S., D. Cimini, A. Memmo, M. Montopoli, T. Rossi, M. De Sanctis, M. Lucenti, D. Mortari, and S. Di Michele, "Flower Constellation of Millimeter-wave Radiometers for Tropospheric Monitoring at Pseudo-geostationary Scale", *IEEE Trans. Geosci. Rem. Sensing*, ISSN: 0196-2892, vol. 47, pp. , 3107-3122, 2009.
- [A.89] Marzano F.S., S. Mori, N. Pierdicca, L. Pulvirenti and J.A. Weinman, "Characterization of atmospheric precipitation effects on spaceborne synthetic aperture radar response at X, Ku, Ka band", *European Journal of Rem. Sensing*, ISSN: 1129-8596, DOI: 10.5721/ItJRS20094136, vol. 41, n. 3, pp. 73-88, 2009.
- [A.90] Marzano F.S., "Corrections to "Modeling Antenna Noise Temperature Due to Rain Clouds at Microwave and Millimeter-Wave Frequencies", *IEEE Trans. Antennas and Propagat.*, ISSN: 0018-926X, vol. 58, n. 1, pp. 242, **2010**.
- [A.91] Marzano F.S., S. Barbieri, E. Picciotti and S. Karlsdóttir, "Monitoring sub-glacial volcanic eruption using C-band radar imagery", *IEEE Trans. Geosci. Rem. Sensing*, ISSN: 0196-2892, vol. 58, n. 1, pp. 403-414, 2010.
- [A.92] Pierdicca N., Pulvirenti L. and F.S. Marzano, "Simulating topographic effects on spaceborne radiometric observations between L- and X- frequency bands", *IEEE Trans. Geosci. Rem. Sensing*, ISSN: 0196-2892, vol. 48, n. 1, pp. 273-282, 2010.
- [A.93] Pichelli E., R. Ferretti, D. Cimini, D. Perissin, M. Montopoli, F.S. Marzano, and N. Pierdicca, "Water vapour distribution at urban scale using high-resolution numerical weather model and spaceborne SAR interferometric data", *Nat. Hazards and Earth System Sciences*, ISSN: 1561-8633, vol. 10, pp. 121-132, 2010.
- [A.94] Marzano F.S., S. Mori and J.A. Weinman, "Evidence of rainfall signature on X-band synthetic aperture radar measurements over land", *IEEE Trans. Geosci. Rem. Sensing*, ISSN: 0196-2892, vol. 48, n. 2, pp. 950-964, 2010.
- [A.95] Rivolta G., M. de Rosa and F.S. Marzano, "Precipitation nowcasting from geostationary satellite platforms: neural network approaches trained by polar orbiting and ground-based data", *European Journal of Rem. Sensing*, ISSN: 1129-8596, vol. 42, pp. 91-115, 2010.
- [A.96] Marzano F.S. and D. Cimini, "Flower elliptical-orbit constellation exploiting millimetre-wave radiometry and radio occultation for meteo-climatological applications", *Adv. in Geosciences*, ISSN: 1680-7340, vol. 25, pp. 167-177, 2010.
- [A.97] Marzano F.S., D. Cimini, M. Montopoli, "Investigating precipitation microphysics using ground-based microwave remote sensors and disdrometer data", *Atmospheric Research*, ISSN: 0169-8095, DOI:10.1016/j.atmosres.2010.03.019, vol. 97, pp. 583-600, 2010.
- [A.98] Marzano F.S., D. Cimini, T. Rossi, D. Mortari, S. Di Michele and P. Bauer, "High-repetition Millimeter-wave Passive Remote Sensing of Humidity and Hydrometeor Profiles from Elliptical Orbit Constellations", *J. Appl. Meteor and Climat.*, ISSN: 1558-8424, DOI: 10.1175/2010JAMC2329.1, vol. 49, pp. 1454-1476, 2010.
- [A.99] Marzano F.S., G. Botta and M. Montopoli, "Iterative Bayesian Retrieval of Hydrometeor Content from X-band Polarimetric Weather Radar", *IEEE Trans. Geosci. Rem. Sensing*, ISSN: 0196-2892, vol. 48, pp. 3059-3074, 2010.
- [A.100] Marzano F.S., S. Marchiotto, C. Textor and D. Schneider, "Model-based Weather Radar Remote Sensing of Explosive Volcanic Ash Eruption", *IEEE Trans. Geosci. Rem. Sensing*, ISSN: 0196-2892, vol. 48, pp. 3591-3607, 2010.





- [A.101] Montopoli M. A. Di Carlofelice, P. Tognolatti and F.S. Marzano, "Remote sensing of the Moon sub-surface from multi-frequency spaceborne microwave radiometers: a numerical study", *Radio Science*, ISSN: 0048-6604, vol. 46, pp. RS1012.1-RS1012.13, doi:10.1029/2009RS004311, **2011**.
- [A.102] Marzano F.S., S. Mori, M. Chini, L. Pulvirenti, N. Pierdicca, M. Montopoli, and J.A. Weinman, "Potential of High-resolution Detection and Retrieval of Precipitation Fields from X-band Spaceborne Synthetic Aperture Radar over land", *Hydrology and Earth System Sci.*, vol. 15, pp. 859–875, 2011.
- [A.103] Pulvirenti L., N. Pierdicca, and F.S. Marzano, "Prediction of the Error Induced by Topography in Satellite Microwave Radiometric Observations", *IEEE Trans. on Geosci. Rem. Sens.*, ISSN: 0196-2892, vol. 49, pp. 3180-3188, 2011.
- [A.104] Marzano F.S., "Remote Sensing of Volcanic Ash Cloud During Explosive Eruptions Using Ground-Based Weather Radar Data Processing", *IEEE Signal Processing Magazine*, ISSN: 1053-5888, DOI: 10.1109/MSP.2010.939846, vol. 28, pp. 128-126, 2011.
- [A.105] Perrotta G., F.S. Marzano, P. Tognolatti and A. Mugnai, "The NanoROLD project in the frame of the AeroClouds programme", *Int. J. of Rem. Sens.*, ISSN: 0143-1161, DOI:10.1080/01431161.2010.498450, vol. 32, pp. 5303-5319, 2011.
- [A.106] Marzano F.S., M. Lamantea, M. Montopoli, S. Di Fabio and E. Picciotti, "The Eyjafjöll explosive volcanic eruption from a microwave weather radar perspective", *Atmosph. Chemistry and Physics*, ISSN: 1680-7316, DOI:10.5194/acp-11-9503-2011, vol. 11, pp. 9503–9518, 2011.
- [A.107] Montopoli M., A. Di Carlofelice, M. Cicchinelli, P. Tognolatti and F.S. Marzano, "Lunar microwave brightness temperature: model interpretation and inversion of spaceborne multi-frequency observations", *IEEE Trans. Geosci. Rem. Sens.*, ISSN: 0196-2892, vol. 49, pp. 3350-3358, 2011.
- [A.108] Marzano F.S., E. Picciotti, G. Vulpiani and M. Montopoli, "Synthetic Signatures of Volcanic Ash Cloud Particles from X-band Dual-Polarization Radar", *IEEE Trans. Geosci. Rem. Sens.*, ISSN: 0196-2892, vol. 50, pp. 193-211, **2012**.
- [A.109] Montopoli M., N. Pierdicca and F.S. Marzano, "Spectral downscaling of integrated water vapor fields from satellite infrared observations", *IEEE Trans. Geosci. Rem. Sens.*, ISSN: 0196-2892, vol. 50, pp. 415-428, 2012.
- [A.110] Vulpiani G., M. Montopoli, L. Delli Passeri, A. G. Gioia, P. Giordano, and F.S. Marzano, "On the use of dual-polarized C-band radar for operational rainfall retrieval in mountainous areas", *J. Appl. Meteor. Climat.*, ISSN: 1558-8424, DOI: 10.1175/JAMC-D-10-05024.1, vol. 51, pp. 405-425, 2012.
- [A.111] Marzano F.S., S. Mori, J.A. Weinman and M. Montopoli, "Modeling Polarimetric Response of Spaceborne Synthetic Aperture Radar Due to Precipitating Clouds From X- to Ka-Band", *IEEE Trans. Geosci. Rem. Sens.*, ISSN: 0196-2892, vol. 50, pp. 687-703, March 2012.
- [A.112] Marzano F.S., M. Lamantea, M. Montopoli, B. Oddsson and M.T. Gudmundsson, "Validating sub-glacial volcanic eruption using ground-based C-band radar imagery", *IEEE Trans. Geosci. Rem. Sens.*, ISSN: 0196-2892, vol. 50, pp. 1266-1282, 2012.
- [A.113] Montopoli M., F.S. Marzano, E. Picciotti, and G. Vulpiani, "Spatially-adaptive Advection Radar Technique for Precipitation Mosaic Nowcasting", *IEEE J. Selected Topics in Appl. Rem. Sens.*, ISSN: 1939-1404, vol. 3, pp. 874-884, 2012.
- [A.114] Marzano F.S., M. Lamantea, M. Montopoli, M. Herzog, H. Graf. And D. Cimini, "Microwave remote sensing of Plinian eruption due to the Grímsvötn Icelandic volcano on May 2011", ISSN: 0034-4257, *Rem. Sens. Env.*, vol. 129, pp. 168–184, **2013**.
- [A.115] Picciotti E., F.S. Marzano, E.N. Anagnostou, J. Kalogiros, Y. Fessas, A. Volpi, V. Cazac, R. Pace, G. Cinque, L. Bernardini, K. De Sanctis, M. Montopoli, M.N. Anagnostou, A. Telleschi, "Coupling X-band dual-polarized mini-radars and hydro-meteorological forecast models: the HYDRORAD project", *Nat. Hazards and Earth Science System*, ISSN: 1561-8633, vol. 13, n. 5, pp. 1229-1241, 2013.
- [A.116] Montopoli M., D. Cimini, M. Lamantea, M. Herzog, H. Graf and F.S. Marzano, "Microwave radiometric remote sensing of volcanic ash clouds from space: model and data analysis", *IEEE Trans. Geosci. Remote Sens.*, ISSN: 0196-2892, vol. 51, n. 9, pp. 4678-4691, 2013.
- [A.117] Anagnostou, M. N., J. Kalogiros, F.S. Marzano, E. N. Anagnostou, M. Montopoli, and E. Picciotti, "Performance evaluation of a new dual-polarization microphysical algorithm based on long-term X-band radar and disdrometer observations", *J. Hydrometeor.*, vol. 14, n. 2, pp. 560-576, 2013.
- [A.118] Kalogiros J., M.N. Anagnostou, E.N. Anagnostou, M. Montopoli, E. Picciotti, and F.S. Marzano, "Optimum estimation of rain microphysical parameters from X-band dual polarization radar observables", *IEEE Trans. Geosci. Remote Sens.*, ISSN: 0196-2892, vol. 51, n.5, pp. 3063 - 3076, 2013.
- [A.119] Kalogiros J., M.N. Anagnostou, E.N. Anagnostou, M. Montopoli, E. Picciotti, and F.S. Marzano, "Correction of polarimetric radar reflectivity measurements and rainfall estimates for apparent vertical profile in stratiform rain", *J. Appl. Meteor. Clim.*, ISSN: 1558-8424, vol. 52, n. 5, pp. 1170-1186, 2013.
- [A.120] Cimini D., F. Romano, E. Ricciardelli, F. Di Paola, M. Viggiano, F.S. Marzano, V. Colaiuda, E. Picciotti, G. Vulpiani, and V. Cuomo, "Validation of satellite OPMW precipitation product with ground-based weather radar and rain gauge networks", *Atmos. Meas. Tech.*, vol. 6, pp. 3181–3196, 2013.
- [A.121] Mattioli V., F.S. Marzano, N. Pierdicca, C. Capsoni, A. Martellucci, "Modelling and Predicting Sky-Noise Temperature of clear, cloudy and rainy atmosphere from X to W Band", *IEEE Trans. Ant. Propagat.*, ISSN: 0018-926X, vol. 61, pp. 3859-3868, 2013.
- [A.122] Marzano F.S., E. Picciotti, G. Vulpiani and M. Montopoli, "Inside Volcanic clouds: Remote Sensing of Ash Plumes Using Microwave Weather Radars", *Bullettin Am. Met. Soc. (BAMS)*, pp. 1567-1586, DOI: 10.1175/BAMS-D-11-00160.1, October 2013.
- [A.123] Pulvirenti L., F.S. Marzano, N. Pierdicca, S. Mori, M. Chini, "Discrimination of Water Surfaces, Heavy Rainfall, and Wet Snow Using COSMO-SkyMed Observations of Severe Weather Events", *IEEE Trans. Geosci. Rem. Sens.*, ISSN: 0196-2892, vol. 52, n. 1, pp. 858-869, **2014**.
- [A.124] Ferretti R., E. Pichelli, S. Gentile, I. Maiello, D. Cimini, S. Davolio, M.M. Miglietta, G. Panegrossi, L. Baldini, F. Pasi, F.S. Marzano, A. Zinzi, S. Mariani, M. Casaioli, G. Bartolini, N. Loggisci, A. Montani, C. Marsigli, A. Manzato, A. Pucillo, M. E.







- Ferrario, V. Colaiuda, and R. Rotunno, "Overview of the first HyMeX Special Observation Period over Italy: observations and model results", *Hydrol. Earth Syst. Sci.*, ISSN: 1027-5606, vol. 18, pp. 1953–1977, 2013.
- [A.125] Kalogiros J., M.N. Anagnostou, E.N. Anagnostou, M. Montopoli, E. Picciotti, and F.S. Marzano, "Evaluation of a New Polarimetric Algorithm for Rain-Path Attenuation Correction of X-Band Radar Observations Against Disdrometer", *IEEE Trans. Geosci. Remote Sens.*, ISSN: 0196-2892, vol. 52, n.2, pp. 1369-1380, 2014.
- [A.126] Montopoli M., G. Vulpiani, D. Cimini, E. Picciotti, and F.S. Marzano, "Interpretation of observed microwave signatures from ground dual polarization radar and space multi frequency radiometer for the 2011 Grímsvötn volcanic eruption", *Atmos. Meas. Tech.*, ISSN: 1867-1381, vol. 7, pp. 7, 537–552, 2014.
- [A.127] Ducrocq V., I. Braud, S. Davolio, R. Ferretti, C. Flamant, A. Jansa, N. Kalthoff, E. Richard, I. Taupier-Letage, P.-A. Ayral, S. Belamari, A. Berne, M. Borge, B. Boudevillain, O. Bock, J.-L. Boichard, M.-N. Bouin, O. Bousquet, C. Bouvier, J. Chiggiato, D. Cimini, U. Corsmeier, L. Coppola, P. Cocquerez, E. Defer, J. Delanoë, G. Delrieu, P. Di Girolamo, A. Doerenbecher, P. Drobinski, Y. Dufournet, N. Fourrié, J. Gourley, L. Labatut, D. Lambert, J. Le Coz, F.S. Marzano, A. Montani, M. Nuret, K. Ramage, B. Rison, O. Roussot, F. Said, A. Schwarzenboeck, P. Testor, J. Van Baelen, B. Vincendon, M. Aran, J. Tamayo, HyMeX-SOP1, the field campaign dedicated to heavy precipitation and flash-flooding in Northwestern Mediterranean, *Bull. Americ. Met. Soc. (BAMS)*, ISSN: 1520-0477, vol. 95, pp. 1083–1100, doi:10.1175/BAMS-D-12-00244.1, 2014.
- [A.128] Gentile S., R. Ferretti and F.S. Marzano, "Investigating Hector Convective Development and Microphysical Structure Using High-Resolution Model Simulations, Ground-Based Radar Data, and TRMM Satellite Data", *J. Atm. Sci.*, ISSN: 0022-4928, vol. 71, pp. 1353-1370, 2014.
- [A.129] Maiello I, R. Ferretti, S. Gentile, M. Montopoli, E. Picciotti, F.S. Marzano, and C. Faccani: "Impact of radar Data Assimilation for the Simulation of a Heavy Rainfall Case in Central Italy Using WRF-3DVAR". *Atmos. Meas. Tech.*, ISSN: 1867-1381, vol. 7, pp. 2919–2935, 2014.
- [A.130] Ori D., T. Maestri, R. Rizzi, D. Cimini, M. Montopoli, and F.S. Marzano, "Scattering properties of modeled complex snowflakes and mixed-phase particles at microwave and millimeter frequencies", *J. Geophys. Res. Atm.*, ISSN: vol. 119, pp. 9931–9947, 2014.

#### AB) Books (with ISBN code):

- [AB.1] Marzano F.S. e N. Pierdicca, *Fondamenti di antenne – Radiazione elettromagnetica e applicazioni*, in Italian, Carocci Editore, Roma (I), pp. 367, ISBN: 978-88-430-4602-7, 2011.

#### AC) Book and special issues editor (with revision and ISSN/ISBN code):

- [AB.1] Marzano F.S. and G. Visconti, Eds., *Remote sensing of atmosphere and ocean from space: models, instruments and techniques*, Advances in Global Change Research series, Kluwer Acad. Pub., Dordrecht (NL), ISBN 1-4020-0943-7, pp. 246, 2002.
- [AB.2] Cimini D., F.S. Marzano and G. Visconti, Eds., *Integrated Ground-Based Observing Systems: Applications for Climate, Meteorology, and Civil Protection*, Springer-Verlag (Berlin Heidelberg, D), ISBN 978-3-642-12967-4, DOI 10.1007/978-3-642-12968-1, pp. 324, 2010.
- [AB.3] Njoku E.G., Editor and M.E. Abrams, G.E. Asrar, F.S. Marzano, P.J. Minnett, V.V. Salomonson, V.H. Singhroy, F.J. Turk, Section Editors, *Encyclopedia of Remote Sensing*, XXV, p. 939, Springer (Berlin, D), Encyclopedia of Earth Sciences Series, ISBN: 978-0-387-36698-2, 2014
- [AB.4] Pierdicca N. and F.S. Marzano, Eds., *Microwave radiometry and remote sensing applications. Preface*, Atti della Fondazione Giorgio Ronchi, ISSN: 0391-2051, vol. LX, pp. 1-2, 2005.
- [AB.5] Pierdicca N., F.S. Marzano, M.T. Hallikainen, P. Pampaloni and E.R. Westwater, Eds., "Foreword to the Special Issue on the 8th Specialist Meeting on Microwave Radiometry and Remote Sensing Applications (MicroRad04)", *IEEE Trans. Geoscience and Remote Sensing*, ISSN: 0196-2892, vol. 43, n. 5, pp. 919-923, 2005.
- [AB.6] Reising S.C., F. S. Marzano, E. G. Njoku, and E. R. Westwater, Eds., "Guest Editorial Foreword to the Special Issue on the 9th Specialist Meeting on Microwave Radiometry and Remote Sensing Applications (MicroRad '06)", *IEEE Trans. Geoscience and Remote Sensing*, ISSN: 0196-2892, vol. 45, n. 7, pp. 1903-1906, 2007.
- [AB.7] Pierdicca N., F.S. Marzano and L. Pulvirenti, Eds., Special Issue on Microwave Remote Sensing. Part I, *European Journal of Remote Sensing*, ISSN: 1129-8596, DOI: 10.5721/ItJRS2009413a2, vol. 41, pp. 5-6, 2009.
- [AB.8] Pierdicca N., F.S. Marzano and L. Pulvirenti, Eds., Special Issue on Microwave Remote Sensing. Part II, *European Journal of Remote Sensing*, ISSN: 1129-8596, DOI: 10.5721/ItJRS2010421a1, vol. 42, pp. 25-26, 2010.
- [AB.9] Cimini D.,

#### AD) Book chapters (with revision and ISBN code):

- [AC.1] Basili P., P. Ciotti, G. d'Auria, F.S. Marzano, and N. Pierdicca, "Microwave radiometry characterization of precipitating clouds", in *Microwave radiometry and Remote Sensing of the Environment*, ISBN: 90-6764-189-8, D. Solimini Ed., VSP Intern. Sci. Publisher, Utrecht (The Netherlands), pp. 229-238, 1995.
- [AC.2] Marzano F.S., A. Mugnai, N. Pierdicca, E.A. Smith, J. Turk, and J. Vivekanandanan, "Precipitation profile retrieval from airborne microwave radiometers: a case study over ocean during CaPE", in *Microwave radiometry and Remote Sensing of the Environment*, ISBN: 90-6764-189-8, D. Solimini Ed., VSP Intern. Sci. Publisher, Utrecht (The Netherlands), pp. 253-264, 1995.
- [AC.3] Marzano F.S., E. Fionda, P. Ciotti, and A. Martellucci, "Rainfall retrieval from ground-based multichannel microwave radiometers", in *Microwave Radiometry and Remote Sensing of the Environment*, P. Pampaloni Ed., VSP Intern. Sci. Publisher, Utrecht (The Netherlands), ISBN: 90-6764-318-1, pp. 397-405, 1999.





- [AC.4] Tassa A., S. Di Michele, E. D'Acunzo, S. Dietrich, F.S. Marzano, and L. Roberti, "Analysis of selected TRMM observations of heavy precipitation events", in *Microwave Radiometry and Remote Sensing of the Environment*, P. Pampaloni Ed., VSP Intern. Sci. Publisher, Utrecht (The Netherlands), ISBN: 90-6764-318-1, pp. 371-377, 1999.
- [AC.5] Turk J., G. Rohaly, J. Hawkins, E.A. Smith, F.S. Marzano, A. Mugnai, and V. Levizzani, "Meteorological applications of precipitation estimation from combined SSM/I, TRMM and geostationary satellite data", in *Microwave Radiometry and Remote Sensing of the Environment*, P. Pampaloni Ed., VSP Intern. Sci. Publisher, Utrecht (The Netherlands), ISBN: 90-6764-318-1, pp. 353-363, 1999.
- [AC.6] d'Auria G., N. Pierdicca, P. Basili, S. Bonafoni, P. Ciotti, and F.S. Marzano, "SSM/I data analysis for retrieving cloud properties and comparison with ground-based measurements", in *Microwave Radiometry and Remote Sensing of the Environment*, P. Pampaloni Ed., VSP Intern. Sci. Publisher, Utrecht (The Netherlands), ISBN: 90-6764-318-1, pp. 387-396, 1999.
- [AC.7] Marzano F.S., A. Mugnai and J. Turk, "Precipitation retrieval from spaceborne microwave radiometers and combined sensors", in *Remote sensing of atmosphere and ocean from space: models, instruments and techniques*, F.S. Marzano and G. Visconti, Eds., Kluwer Acad. Pub., Dordrecht (NL), ISBN 1-4020-0943-7, pp. 107-126, 2002.
- [AC.8] Battaglia A., C. Simmer, S. Crewell, H. Czekala, C. Emde, F.S. Marzano, M. Mishchenko, J. Pardo and C. Prigent, "Ch. 3. Emission and scattering by clouds and precipitation", in *Thermal microwave radiation: application for remote sensing*, C. Matzler Ed., ISBN-10: 0863415733, IET Press (Stevenage, UK), pp. 101-224, 2006.
- [AC.9] Marzano F.S., D. Cimini, and J. Turk, "Multivariate probability matching of Satellite Infrared and Microwave Radiometric Measurements for Rainfall Retrieval at the Geostationary Scale", in *Measuring precipitation from space – EURAINSAT and the future*. V. Levizzani, P. Bauer, and F. J. Turk, Eds., Springer, 269-280, 2007.
- [AC.10] Mugnai A., S. Di Michele, E. A. Smith, F. Baordo, P. Bauer, B. Bizzarri, P. Joe, C. Kidd, F. S. Marzano, A. Tassa, J. Testud, and G. J. Tripoli, "Snowfall Measurements by Proposed European GPM Mission", in *Measuring precipitation from space – EURAINSAT and the future*. V. Levizzani, P. Bauer, and F. J. Turk, Eds., Springer, 655-674, 2007.
- [AC.11] Tapiador F.J., C. Kidd, V. Levizzani, and F.S. Marzano, "Neural network tools for satellite rainfall estimation", in *Measuring precipitation from space – EURAINSAT and the future*. V. Levizzani, P. Bauer, and F. J. Turk, Eds., Springer, 149-162, 2007.
- [AC.12] Vulpiani G. and F.S. Marzano, "Advanced radar polarimetric techniques for rainfall observation", in *Hydrological Modelling and the Water Cycle*, Edited by S. Sorooshian, K.-L. Hsu, E. Coppola, B. Tomassetti, M. Verdecchia, and G. Visconti. Berlin: Springer, 2008. ISBN: 978-3-540-77842-4.
- [AC.13] Montopoli M. and F.S. Marzano, "Weather radar principles and ground measurement of rain", in *Integrated Ground-Based Observing Systems Applications for Climate, Meteorology, and Civil Protection*, D. Cimini, F.S. Marzano and G. Visconti, Eds., Springer-Verlag (Berlin, D), pp. 38-58, 2010.
- [AC.14] Montopoli M. and F.S. Marzano, "An introduction on rain gauges and disdrometers", in *Integrated Ground-Based Observing Systems Applications for Climate, Meteorology, and Civil Protection*, D. Cimini, F.S. Marzano and G. Visconti, Eds., Springer-Verlag (Berlin, D), pp. 107-114, 2010.
- [AC.15] Marzano F.S., "Weather radar remote sensing of volcanic ash clouds for aviation hazard and civil protection applications", in *Integrated Ground-Based Observing Systems Applications for Climate, Meteorology, and Civil Protection*, Cimini D., F.S. Marzano and G. Visconti, Eds., Springer-Verlag (Berlin, D), pp. 189-198, 2010.
- [AC.16] Kalogiros, J., M. N. Anagnostou, E. N. Anagnostou, M. Montopoli, E. Picciotti, and F.S. Marzano, "Polarimetric observations of rainfall by low-cost dual-polarized radar", "Advances in Meteorology, Climatology and Atmospheric Physics", Springer Atmospheric Sciences, 2012, 1268 pp., ISBN: 9783642291715

#### AE) International reports (with revision and ISSN/ISBN code):

- [AE.1] Basili P., S. Bonafoni, P. Ciotti, F.S. Marzano, G. d'Auria, and N. Pierdicca, "The use of time correlation in designing algorithms for microwave retrieval of atmospheric temperature profiles", *Atti della Fondazione Ronchi*, ISSN: 0391-2051, vol. LIV, pp. 483-493, 1999.
- [AE.2] d'Auria, G., P. Castracane, F.S. Marzano, N. Pierdicca, L. Pulvirenti, "Spaceborne microwave radiometric observations of cloud systems: numerical simulations and validation", *Atti della Fondazione Giorgio Ronchi*, ISSN: 0391-2051, vol. LVI,4-5, pp. 1047-1057, 2001.
- [AE.3] Marzano F.S., E. Fionda, P. Ciotti and A. Martellucci, "On the use of ground-based microwave radiometry for precipitation and radio-propagation parameter retrieval", *Atti della Fondazione Ronchi*, ISSN: 0391-2051, vol. LVI, pp. 1027-1037, 2001.
- [AE.4] Mugnai, A., B. Bizzarri, S. De Michele, A. Tassa, P. Bauer, F.S. Marzano; P. P. Baptista, E.A. Smith and G. Tripoli, "Microwave radiometry and remote sensing applications. Simulated radiometric precipitation measurements from the proposed european GPM (EGPM) satellite", *Atti della Fondazione Giorgio Ronchi*, ISSN: 0391-2051, vol. LX, 1-2, pp. 106-116, 2005.
- [AE.5] F.S. Marzano, D. Cimini, P. Ciotti, R. Ware, E. Fionda, "Microwave radiometry and remote sensing applications. Modeling and measurement of rainfall by ground-based multispectral microwave radiometry", *Atti della Fondazione Giorgio Ronchi*, ISSN: 0391-2051, vol. LX, 1-2, pp. 111-121, 2005.
- [AE.6] Basili P., S. Bonafoni, V. Mattioli, P. Ciotti, F.S. Marzano, G. d'Auria, N. Pierdicca and L. Pulvirenti, "Microwave remote sensing of precipitable water vapour: integration of GPS and SSM/I measurements", *Rivista Italiana di Telerilevamento AIT*, ISSN: 1129-8596, n. 26, pp 1-6, Settembre 2002.
- [AE.7] Pulvirenti L., N. Pierdicca, G. d'Auria, P. Ciotti, F.S. Marzano and P. Basili, "Physical and empirical approaches to retrieve surface rain rate from Special Sensor Microwave Imager: comparison with raingauge measurements", *Rivista Italiana di Telerilevamento AIT*, ISSN: 1129-8596, n. 26-28, pp. 11-16, 2003.
- [AE.8] Vulpiani G. and F.S. Marzano, "Polarimetric weather radar retrieval of raindrop size distribution by means of a neural-network algorithm", in *Rivista Italiana di Telerilevamento AIT*, ISSN: 1129-8596, Numero speciale - 3° Workshop AIT-CeTem "Il Telerilevamento a microonde. L'attività di ricerca e le sue applicazioni", n. 35, 2006.





- [AE.9] Petty G. and F.S. Marzano, “Inversion techniques for microwave radiometry”, in *COST Action 712 Application of microwave radiometry to atmospheric research and monitoring Final Report*, ISBN: 92-828-9842-3, European Commission DGR Publisher (Brussels, B), EUR 19543, 2000.
- [AE.10] Czekala H., P. Bauer, F.S. Marzano, L. Roberti, A. Tassa, “Radiative transfer models for microwave radiometry”, in *Radiative Transfer Models for Microwave Radiometry*, C. Matzler Ed., *COST Action 712*, ISBN 92-828-9842-3, 2000.
- [AE.11] Boumis M., E. Fionda, O. Fiser, A. Martellucci, F.S. Marzano, P. Watson and C. Wrench, “Propagation effects due to atmospheric gases and clouds”, in *COST Action 255 Radiowave Propagation Modelling for SatCom Services at Ku-Band and above Final Report*, Ch. 2.1, ISBN 92-9092-608-2, ESA Publisher (NL), 2002.
- [AE.12] Chisalita I., M. D’Amico, B. Gremont, M. Hajny, F.S. Marzano, T. Palade and C. Riva, “Rain Attenuation”, in *COST Action 255 Radiowave Propagation Modelling for SatCom Services at Ku-Band and above Final Report*, Ch. 2.2, ISBN: 92-9092-608-2, ESA Publisher (NL), 2002.
- [AE.13] Mätzler C., E. R. Westwater, D. Cimini, S. Crewell, T. Hewison, J. Güldner, and F. S. Marzano, “Ground-Based Microwave Remote Sensing of the Troposphere”, *COST Action 720 Integrated Ground-Based Remote-Sensing Stations for Atmospheric Profiling Final Report*, ISBN/ISSN: 978-92-898-0050-1, D. Engelbart, W. Monna, J. Nash and C. Mätzler Eds., OPOCE Publisher (Brussels, B), pp. 20-60, 2008.
- [AE.14] Bianco L., D. Cimini, F.S. Marzano, R. Ware, “An Example of Integration of UHF Wind Profiler and Microwave Radiometer”, *COST Action 720 Integrated Ground-Based Remote-Sensing Stations for Atmospheric Profiling Final Report*, ISBN/ISSN: 978-92-898-0050-1, D. Engelbart, W. Monna, J. Nash and C. Mätzler Eds., OPOCE Publisher (Brussels, B), pp. 213-221, 2008.
- [AE.15] Marzano, F.S., “Satellite missions to come”, in *Climate and Satellites*, D. Murat and R. Roca Eds., SudS Concepts Press & Edition, pp. 23, 2008.
- [AE.16] Ferretti R., K. De Sanctis, L. Molini, A. Parodi, M. Montopoli, F. S. Marzano, and F. Siccardi, “Investigating the sensitivity of high-resolution mesoscale models to microphysical parameters by the use of polarimetric radar observations”, *Atmos. Chem. Phys. Discuss.*, 10, 20461–20514, doi:10.5194/acpd-10-20461-2010, 2010.

## CURRICULUM VITAE

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## EMPLOYMENT SUMMARY

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| July 2012 - ...        | <b>“Directeur de recherche” at the CNRS</b>                                                                                                                |
| Sept. 2001 - ...       | <b>Member of the “Institut Universitaire de France”</b>                                                                                                    |
| Sept. 1998 - June 2012 | <b>Professeur d’Université, section 28,</b><br>Université Pierre et Marie Curie - Paris 6,<br>Institut de Minéralogie et de Physique des Milieux Condensés |
| Jan. 1997 - Aug. 1998  | <b>Maître assistant,</b><br>Institut Romand de Recherche numérique<br>en physique des MATériaux (IRRMA) de Lausanne,<br>Université de Geneva               |
| Nov. 1994 - Dec. 1996  | <b>Miller Research Fellow,</b><br>University of California at Berkeley                                                                                     |

## EDUCATION

|                       |                                                                                                                                                                                                                                                      |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Oct. 1990 - Oct. 1994 | <b>Doctoral studies:</b><br>Institut Romand de Recherche numérique<br>en physique des MATériaux (IRRMA) de Lausanne,<br>Université de Geneva and<br>International School for Advanced Studies (SISSA) of Trieste<br>Ph.D in physics: 30/30 cum laude |
| Oct. 1985 - Jul. 1990 | <b>Undergraduate studies:</b><br>Università di Pisa<br>Scuola Normale Superiore di Pisa<br>Diploma di “Laurea”: 110/110 cum laude                                                                                                                    |



## PHD THESIS DIRECTION

|                        |                                              |
|------------------------|----------------------------------------------|
| Oct. 2014 - ...        | Direction of A. Torche                       |
| Jan. 2014 - ...        | Direction of G. Almeida Silva Ribeiro thesis |
| Sept. 2013 - ...       | Direction of M. Dagrada thesis               |
| Sept. 2012 - ...       | Direction of N. Dupuy thesis                 |
| Sept. 2012 - ...       | Co-direction of T. Sohier thesis             |
| Sept. 2010 - Oct. 2013 | Co-direction of P. Zoccante thesis           |
| Sept. 2009 - Jun. 2013 | Direction of G. Kane thesis                  |
| Sept. 2008 - Jun. 2013 | Direction of T. Wassmann thesis              |
| Sept. 2006 - Nov. 2009 | Co-direction of C. Gougoussis thesis         |
| Sept. 2006 - Dec. 2010 | Direction of N. Vandecasteele thesis         |
| Sept. 2004 - Sep. 2008 | Direction of M. Arafaoui thesis              |
| Sept. 2004 - Jan. 2008 | Direction of M. Meheut thesis                |
| Sept. 2002 - Oct. 2005 | Direction of M. D’Avezac thesis              |
| Sept. 2000 - Dec. 2003 | Direction of M. Profeta thesis               |
| March 2000 - Oct. 2003 | Co-direction of A. Sabouri-Dodaran thesis    |
| Oct. 1998 - Jan. 2001  | Co-direction of S. Chabaud thesis            |
| Sept. 1997 - Jan. 2000 | Co-direction of E. Balan thesis              |

## RESEARCH ACHIEVEMENTS

My activity focuses on the prediction of the physical properties of complex materials using first-principles electronic structure methods, and the development of original conceptual developments, methods, and algorithms to treat interacting electrons. At the “Institut de Minéralogie et de Physique des Milieux Condensés” I established and head a research group in quantum theory of materials that involves 6 permanent researchers. My principal research achievements are on:

**Simulation of spectroscopies.** I have given particular emphasis to collaboration with experimental groups in very diverse fields, and to the use of ab-initio calculations to predict and interpret spectroscopic data (NMR, XANES, X-ray magnetic dichroism, IR, Raman, EPR spectra). I have pioneered several original developments in this field especially for magnetic spectroscopies in extended systems and applied all these methods extensively, with e.g. many recent notable applications in vibrational spectroscopies for carbon nanotubes and graphene. One important example is the development of the first theory for the first-principles calculation of NMR/EPR parameters in solids. Previous methods (of the quantum chemistry community) could deal only with finite systems (molecules isolated in vacuum). Our new theory has been implemented in two electronic structure codes, a free-ware package (within the Quantum Espresso Distribution) and a commercial code commercialized by Accelry (Castep-NMR). Part of the royalties of Castep-NMR is paid to the University of Paris 6. I have been working in collaboration with several experimental NMR groups in France and UK to use the NMR codes for the interpretation of NMR spectra in silicate crystals and glasses, in zeolites, in biomolecular crystals, water, minerals, and in boron-rich materials. The two codes are nowadays widely used within the experimental community of solid-state NMR. Beside NMR and EPR, I have developed methods and codes for the efficient simulation of Raman, IR and Xanes spectra, for the non-linear electrical suscepti-

bility, the magnetic susceptibility, and the orbital magnetization. Recently I identified very large non-adiabatic effects in the Raman spectra of carbon-nanotubes, graphene and, more in general, in layered metals. The inclusion of such effects is crucial to interpret experimental data these systems.

**Phonon-mediated superconductivity.** The coupling of phonons with electrons is another important topic of my research. I studied several phonon mediated superconductors, identifying the most relevant phonons and and electron-phonon interactions. I studied the origin of superconductivity-variation in Te under pressure. In  $\text{MgB}_2$ , I extracted from experimental inelastic X-ray scattering data, the electron-phonon coupling parameters. I studied the effects of magnetism and doping on the electron-phonon coupling in  $\text{BaFe}_2\text{As}_2$ . I suggested that highly doped diamond ( $\text{BC}_5$ ) and hole-doped icosahedral Boron compounds are potential candidates for high  $T_c$  superconductivity. I identified and characterized the electron-phonon coupling responsible for superconductivity in  $\text{CaC}_6$ ,  $\text{KC}_8$  and in other intercalated graphite, the charge-Density Wave and Superconducting Dome in  $\text{TiSe}_2$ , the intercalant and intermolecular phonon assisted superconductivity in K-doped picene, the inverse isotope effect in superconducting palladium-hydrates. Finally I have proposed that phonon-mediated superconductivity can be induced in graphene by coating it with metal-ions. Surprisingly the highest  $T_c$  is achieved with Li and not with Ca, contrary to what is observed in intercalated graphite. For the description of the electron dispersion and of the electron-phonon interaction we have implemented an approach that takes advantage of the localization in real space of the electronic Wannier-function. Such model has the computational complexity of a TB Hamiltonian but retains the accuracy of the DFT ab-initio calculations. In graphene I demonstrated how the e-e interaction and the electron doping modulate the electron-phonon interaction.

**Carbon nanotubes and graphene.** I explained theoretically (in a paper that is the most cited PRL of 2006) the origin of the characteristic feature of graphene Raman spectra that is currently used to count the number of layers present in a graphene sample. This technique is nowadays used in most experimental papers to identify monolayer and bilayer graphene. I predicted (anticipating a subsequent experimental confirmation) that Raman can also be used to measure the doping level of graphene and carbon nanotubes. I predicted and identified, in experimental data, the presence of significant Kohn anomalies in the phonon dispersion of carbon nanotubes, graphite and graphene. I used these Kohn anomalies, together with the Raman and IR lifetimes and temperature-shifts, to obtain, from experiments, accurate values of the electron-phonon and phonon-phonon coupling of graphite based materials. I showed that in graphene and graphite DFT is not able to correctly account for the experimentally observed electron-phonon interaction and one need to include electron-correlation effects at the GW level. The detailed knowledge of the electron-phonon and phonon-phonon interaction parameters has allowed me to study the origin of current saturation in graphene and in metallic nanotubes at high field. In metallic nanotubes I showed that the decrease of the differential conductance at high field is due to the presence of hot phonons. I proposed to use isotope-enriched nanotubes to control the temperature of such hot phonons and to boost the electrical differential conductance of metallic tubes. Finally, a key step in the use of graphene in electronics is the possibility to cut atomically flat and defected-free edges. With this goal I used first-principles DFT

calculations to identify the most stable regular edged of graphene under different chemical environments.

**Anharmonicity, phonon-phonon interaction and thermal conduction.** I developed a Monte-Carlo type of approach to treat, with ab-initio methods strong anharmonic systems beyond perturbation theory, using the Self-consistent Harmonic approximation. I applied it to PdH superconductors to explain the inverse isotope effect. I am now using the method to describe temperature dependent phonons (and phonon properties) in CDW materials, ferroelectrics, and thermoelectrics. When anharmonicity can be treated as perturbation, the leading term is the three-phonon scattering coefficient, which is given by the third-order derivative of the energy with respect to atomic displacements ( $V(3)$ ). Till recently the  $V(3)$  calculations were restricted to scattering involving one zone-center phonon. I extended such calculations to phonon with arbitrary momentum as required by the study of heat-transport coefficients. I also developed a new method to compute the thermal conductivity solving the Boltzmann transport equation taking advantage of a variational principle. I published a paper on diamond and I am now working of the thermal transport properties of 2D materials.

**Amorphous materials.** I used the possibility of simulating NMR and Raman data to elucidate the local geometry and the medium range order in many disordered system, including amorphous allumino-silicate glasses, silica, amorphous boron-oxides, amorphous carbon. More recently, I clarified the origin of many apparent paradoxes in the vitrification of  $B_2O_3$ . It is one of the best glass-forming systems despite an apparent lack of low-pressure polymorphism, and its glassy form is abnormally different from the only known crystalline phase at ambient pressure. Using ab-initio calculations, I revealed the existence of previously unknown  $B_2O_3$  crystalline polymorphs with structural properties similar to the glass and formation energies comparable to the known ambient crystal. The energy degeneracy of the crystals, which is high at ambient pressure and suppressed under pressure, provides a framework to understand the system's ability to vitrify and the origin of the crystallization anomaly.

**Mineral-physics and geochemistry.** I has also worked at the interface between solid state physics and geology. I used DFT calculations to interpret the IR spectra of many natural mineral (especially clay minerals) including multiwall asbestos nanotubes. I showed that it is possible to use ab-initio calculation to compute accurate isotope equilibrium fractionation (a properties determined by the quantum motion of the nuclei) among minerals and with liquid water. Isotope fractionation is one of the most important geological indicators that can reveal information about the condition of formation of a rock and/or the isotope source of air or water at the time of the mineral formation. Isotope ratios are also used to shed light on the global functioning of the planet Earth.

## PUBLICATIONS

The published articles include

32 Phys. Rev. Lett.,  
1 Science,  
2 Nature Materials,  
1 Nature Physics,  
7 J. Am. Chem. Soc.,  
60 Phys. Rev. B. (including 12 Rapid Communications).

Total number of citations: 16238

H-index (Hirsch): 53

Number of papers with more than 100 citations: 27

ISI Web of Knowledge, reference period: Jan. 1991 - September 2014, search string: AU=(mauri f) AND AD=(Pisa or Paris or Lausanne or Berkeley) NOT AD=(cern) NOT TS=(genetics) NOT SU=(cardio\*)

[178] C. Pinilla, M. Blanchard, E. Balan, G. Ferlat, R. Vuilleumier, F. Mauri  
*Equilibrium fractionation of H and O isotopes in water from path integral molecular dynamics*  
Geochimica et Cosmochimica Acta **135**, 203 (2014).

[177] M. Dagrada, M. Casula, A.M. Saitta, S. Sorella, F. Mauri  
*Quantum Monte Carlo Study of the Protonated Water Dimer*  
J. of Chemical Theory and Computation **10**, 1980 (2014).

[176] C.H. Park, N. Bonini, T. Sohier, G. Samsonidze, B. Kozinsky, M. Calandra, F. Mauri, N. Marzari  
*Electron-Phonon Interactions and the Intrinsic Electrical Resistivity of Graphene*  
Nanoletters **14**, 1113 (2014).

[175] I. Errea, M. Calandra, F. Mauri  
*First-principles theory of anharmonicity and the inverse isotope effect in superconducting palladium-hydride compounds*  
Phys. Rev. Lett. **111**, 177002 (2013).

[174] G. Fugallo, L. Paulatto, M. Lazzeri, F. Mauri  
*Ab initio variational approach for evaluating lattice thermal conductivity*  
Phys. Rev. B **88**, 045430 (2013).

[173] F. Vasconcelos, S. Cristol, J.F. Paul, L. Delevoye, F. Mauri, T. Charpentier, G. Le Caer  
*Extended Czjzek model applied to NMR parameter distributions in sodium metaphosphate glass*  
J. Phys.: Condens. Matter **25** 255402 (2013).

- [172] L. Paulatto, M. Lazzeri, F. Mauri  
*Anharmonic properties from a generalized third-order ab initio approach: Theory and applications to graphite and graphene*  
Phys. Rev. **B 87**, 214303 (2013).
- [171] P. May, M. Lazzeri, P. Venezuela, F. Herziger, G. Callsen, J.S. Reparaz, A. Hoffmann, F. Mauri, J. Maultzsch  
*Signature of the two-dimensional phonon dispersion in graphene probed by double-resonant Raman scattering*  
Phys. Rev. **B 87**, 075402 (2013).
- [170] M. Calandra, G. Profeta, F. Mauri  
*Superconductivity in metal-coated graphene*  
Physica Status Solidi **B 249**, 2544 (2012).
- [169] C. Bonhomme, C. Gervais, F. Babonneau, C. Coelho, F. Pourpoint, T. Azais, S.E. Ashbrook, J.M. Griffin, J. Yates, F. Mauri, C. J. Pickard  
*First-Principles Calculation of NMR Parameters Using the Gauge Including Projector Augmented Wave Method: A Chemist's Point of View*  
Chemical Review **112**, 5733 (2012).
- [168] G. Ferlat, A.P. Seitsonen, M. Lazzeri, F. Mauri  
*Hidden polymorphs drive vitrification in B<sub>2</sub>O<sub>3</sub>*  
Nature Materials **11**, 925 (2012).
- [167] M. Casula, M. Calandra, F. Mauri  
*Local and nonlocal electron-phonon couplings in K-3 picene and the effect of metallic screening*  
Phys. Rev. **B 86**, 075445 (2012).
- [166] D.L. Mafra, P. Gava, L.M. Malard, R.S. Borges, G.G. Silva, J.A. Leon, F. Plentz, F. Mauri, M.A. Pimenta  
*Characterizing intrinsic charges in top gated bilayer graphene device by Raman spectroscopy*  
Carbon **50**, 3435 (2012).
- [165] M. Blanchard, F. Poitrasson, M. Meheut, M. Lazzeri, F. Mauri, E. Balan  
*Comment on "New data on equilibrium iron isotope fractionation among sulfides: Constraints on mechanisms of sulfide formation in hydrothermal and igneous systems"*  
Geochimica et Cosmochimica Acta **87**, 356 (2012).
- [164] M. Calandra, C. Attacalite, G. Profeta, F. Mauri  
*Comment on "Electronic Structure of Superconducting KC8 and Nonsuperconducting LiC6 Graphite Intercalation Compounds: Evidence for a Graphene-Sheet-Driven Superconducting State"*  
Phys. Rev. Lett. **108**, 149701 (2012).
- [163] G. Profeta, M. Calandra, F. Mauri  
*Phonon-mediated superconductivity in graphene by lithium deposition*  
Nature Physics **8**, 131 (2012).

- [162] N. Folliet, C. Roiland, S. Begu, A. Aubert, T. Mineva, A. Goursot, K. Selvaraj, L. Duma, F. Tielens, F. Mauri, G. Laurent, C. Bonhomme, C. Gervais, F. Babonneau, T. Azais  
*Investigation of the Interface in Silica-Encapsulated Liposomes by Combining Solid State NMR and First Principles Calculations*  
J. Am. Chem. Soc. **133** 16815 (2011).
- [161] E. Abou-Hamad, M.R. Babaa, M. Bouhrara, Y. Kim, Y. Saih, S. Denmler, F. Mauri, J.M. Basset, C. Goze-Bac, T. Wagberg  
*Structural properties of carbon nanotubes derived from  $^{13}\text{C}$  NMR*  
Phys. Rev. **B 84**, 165417 (2011).
- [160] M. Casula, M. Calandra, G. Profeta, F. Mauri  
*Intercalant and intermolecular phonon assisted superconductivity in K-doped picene*  
Phys. Rev. Lett. **107**, 137006 (2011).
- [159] F. Pourpoint, C.C. Diogo, C. Gervais, C. Bonhomme, F. Fayon, S.L. Dalcieux, I. Gennero, J.P. Salles, A.P. Howes, R. Dupree, J.V. Hanna, M.E. Smith, F. Mauri, G. Guerrero, P.H. Mutin, D. Laurencin  
*High-resolution solid state NMR experiments for the characterization of calcium phosphate biomaterials and biominerals*  
J. Mat. Res. **26**, 2355 (2011).
- [158] P. Venezuela, M. Lazzeri, F. Mauri  
*Theory of double-resonant Raman spectra in graphene: Intensity and line shape of defect-induced and two-phonon bands*  
Phys. Rev. **B 84**, 035433 (2011).
- [157] A.C. Walters, C.A. Howard, M.H. Upton, M.P.M. Dean, A. Alatas, B.M. Leu, M. Ellerby, D.F. McMorrow, J.P. Hill, M. Calandra, F. Mauri  
*Comparative study of the phonons in nonsuperconducting  $\text{BaC}_6$  and superconducting  $\text{CaC}_6$  using inelastic x-ray scattering*  
Phys. Rev. **B 84**, 014511 (2011).
- [156] D. Ziegler, P. Gava, J. Guttinger, F. Molitor, L. Wirtz, M. Lazzeri, A.M. Saitta, A. Stemmer, F. Mauri, C. Stampfer  
*Variations in the work function of doped single- and few-layer graphene assessed by Kelvin probe force microscopy and density functional theory*  
Phys. Rev. **B 83**, 235434 (2011).
- [155] M. Calandra, F. Mauri  
*Charge-Density Wave and Superconducting Dome in  $\text{TiSe}_2$  from Electron-Phonon Interaction*  
Phys. Rev. Lett. **106**, 196406 (2011).
- [154] D. Laurencin, N. Almora-Barrios, N.H. de Leeuw, C. Gervais, C. Bonhomme, F. Mauri, W. Chrzanowski, J.C. Knowles, R.J. Newport, A. Wong, Z.H. Gan, M.E. Smith  
*Magnesium incorporation into hydroxyapatite*  
Biomaterials **32**, 1826 (2011).

- [153] C. Bonhomme, C. Gervais, C. Coelho, F. Pourpoint, T. Azais, L. Bonhomme-Courty, F. Babonneau, G. Jacob, M. Ferrari, D. Canet, J.R. Yates, C.J. Pickard, S.A. Joyce, F. Mauri, D. Massiot  
*New perspectives in the PAW/GIPAW approach:  $J(P-O-Si)$  coupling constants, antisymmetric parts of shift tensors and NQR predictions*  
Magnetic Resonance in Chemistry **48**, s86 (2010).
- [152] F. Vasconcelos, S. Cristol, J.F. Paul, L. Montagne, F. Mauri, L. Delevoye  
*First-principles calculations of NMR parameters for phosphate materials*  
Magnetic Resonance in Chemistry **48**, s142 (2010).
- [151] M. Calandra, G. Profeta, F. Mauri  
*Adiabatic and nonadiabatic phonon dispersion in a Wannier function approach*  
Phys. Rev. **B 82**, 165111 (2010).
- [150] A.P. Seitsonen, A.M. Saitta, T. Wassmann, M. Lazzeri, F. Mauri  
*Structure and stability of graphene nanoribbons in oxygen, carbon dioxide, water, and ammonia*  
Phys. Rev. **B 82**, 115425 (2010).
- [149] N. Forler, F. Vasconcelos, S. Cristol, J.F. Paul, L. Montagne, T. Charpentier, F. Mauri, L. Delevoye  
*New insights into oxygen environments generated during phosphate glass alteration: a combined O-17 MAS and MQMAS NMR and first principles calculations study*  
Phys. Chem. Chem. Phys. **B 12**, 9054 (2010).
- [148] M.P.M. Dean, A.C. Walters, C.A. Howard, T.E. Weller, M. Calandra, F. Mauri, M. Ellerby, S.S. Saxena, A. Ivanov, D.F. McMorro  
*Neutron scattering study of the high-energy graphitic phonons in superconducting CaC6*  
Phys. Rev. **B 82**, 014533 (2010).
- [147] N. Vandecasteele, A. Barreiro, M. Lazzeri, A. Bachtold, F. Mauri  
*Current-voltage characteristics of graphene devices: Interplay between Zener-Klein tunneling and defects*  
Phys. Rev. **B 82**, 045416 (2010).
- [146] L. Boeri, M. Calandra, I.I. Mazin, O.V. Dolgov, F. Mauri  
*Effects of magnetism and doping on the electron-phonon coupling in BaFe2As2*  
Phys. Rev. **B 82**, 020506 (2010) (Rapid Communications).
- [145] A.L. Webber, B. Elena, J.M. Griffin, J.R. Yates, T.N. Pham, F. Mauri, C.J. Pickard, A.M. Gil, R. Stein, A. Lesage, L. Emsley, S.P. Brown  
*Complete H-1 resonance assignment of beta-maltose from H-1-H-1 DQ-SQ CRAMPS and H-1 (DQ-DUMBO)-C-13 SQ refocused INEPT 2D solid-state NMR spectra and first principles GIPAW calculations*  
Phys. Chem. Chem. Phys. **12**, 6970 (2010).

- [144] M. Meheut, M. Lazzeri, E. Balan, F. Mauri  
*First-principles calculation of H/D isotopic fractionation between hydrous minerals and water*  
Geochimica et Cosmochimica Acta **74**, 3874 (2010).
- [143] U. Gerstmann, A.P. Seitsonen, D. Ceresoli, F. Mauri, H.J. von Bardeleben, J.L. Cantin, J.G. Lopez  
*SiCCSi antisite pairs in SiC identified as paramagnetic defects with strongly anisotropic orbital quenching*  
Phys. Rev. **B 81**, 195208 (2010).
- [142] C. Attaccalite, L. Wirtz, M. Lazzeri, F. Mauri, A. Rubio  
*Doped Graphene as Tunable Electron-Phonon Coupling Material*  
Nano Letters **10**, 1172 (2010).
- [141] M. d'Astuto, M. Calandra, N. Bendiab, G. Loupiau, F. Mauri, SY Zhou, J. Graf, A. Lanzara, N. Emery, C. Herold, P. Lagrange, D. Petitgrand, M. Hoesch  
*Phonon dispersion and low-energy anomaly in CaC6 from inelastic neutron and x-ray scattering experiments*  
Phys. Rev. **B 81**, 104519 (2010).
- [140] T. Wassmann, A.P. Seitsonen, A.M. Saitta, M. Lazzeri, F. Mauri,  
*Clar's Theory,  $\pi$ -Electron Distribution, and Geometry of Graphene Nanoribbons*  
J. Am. Chem. Soc. **132**, 3440 (2010).
- [139] S. Ispas, T. Charpentier, F. Mauri, D.R. Neuville  
*Structural properties of lithium and sodium tetrasilicate glasses: Molecular dynamics simulations versus NMR experimental and first-principles data*  
Solid State Sciences **12**, 183 (2010).
- [138] D. Ceresoli, U. Gerstmann, A. P. Seitsonen, F. Mauri  
*First-principles theory of orbital magnetization*  
Phys. Rev. **B 81**, 060409 (2009) (Rapid Communications).
- [137] M. Blanchard, F. Poitrasson, M. Meheut, M. Lazzeri, F. Mauri, E. Balan  
*Iron isotope fractionation between pyrite ( $FeS_2$ ), hematite ( $Fe_2O_3$ ) and siderite ( $FeCO_3$ ): A first-principles density functional theory study*  
Geochimica et Cosmochimica Acta **73**, 6565 (2009).
- [136] M. Calandra, I.I. Mazin, F. Mauri  
*Effect of dimensionality on the charge-density wave in few-layer  $2H-NbSe_2$*   
Phys. Rev. **B 80**, 241108 (2009) (Rapid Communications).
- [135] T. Wassmann, A.P. Seitsonen, A.M. Saitta, M. Lazzeri, F. Mauri,  
*The thermodynamic stability and simulated STM images of graphene nanoribbons*  
Physica Status Solidi **B 246**, 2586 (2009).
- [134] J.X. Zhang, M.A. Pilette, F. Cuevas, T. Charpentier, F. Mauri, M. Latroche  
*X-ray Diffraction and NMR Studies of  $Na_3-nLi_nAlH_6$  ( $n=0, 1, 2$ ) Alanates Synthesized by High-Pressure Reactive Ball Milling*  
J. Phys. Chem. **C 113**, 21242 (2009).



- [133] E. Balan, P. Cartigny, M. Blanchard, D. Cabaret, M. Lazzeri, F. Mauri  
*Theoretical investigation of the anomalous equilibrium fractionation of multiple sulfur isotopes during adsorption*  
Earth Planet. Sci. Lett. **287**, 569 (2009).
- [132] P. Gava, M. Lazzeri, A.M. Saitta, F. Mauri  
*Probing the electrostatic environment of bilayer graphene using Raman spectra*  
Phys. Rev. **B 80**, 155422 (2009).
- [131] G. Stoltz, N. Mingo, F. Mauri  
*Reducing the thermal conductivity of carbon nanotubes below the random isotope limit*  
Phys. Rev. **B 80**, 113408 (2009).
- [130] D. Laurencin, C. Gervais, A. Wong, C. Coelho, F. Mauri, D. Massiot, M.E. Smith, C. Bonhomme,  
*Implementation of High Resolution  $\text{Ca}_{43}$  Solid State NMR Spectroscopy: Toward the Elucidation of Calcium Sites in Biological Materials*  
J. Am. Chem. Soc. **131**, 13430 (2009).
- [129] C. Gougoussis, M. Calandra, A.P. Seitsonen, F. Mauri  
*First-principles calculations of x-ray absorption in a scheme based on ultrasoft pseudopotentials: From  $\alpha$ -quartz to high- $T_c$  compounds*  
Phys. Rev. **B 80**, 075102 (2009).
- [128] A. Gruneis, J. Serrano, A. , M. Lazzeri, S.L. Molodtsov, L. Wirtz, C. Attacalite, M. Krisch, A. Rubio, F. Mauri, T. Pichler,  
*Phonon surface mapping of graphite: Disentangling quasi-degenerate phonon dispersions*  
Phys. Rev. **B 80**, 085423 (2009).
- [127] P. Giannozzi et al.,  
*QUANTUM ESPRESSO: a modular and open-source software project for quantum simulations of materials*  
J. Phys.: Condens. Matter **21** 395502 (2009).
- [126] A. Barreiro, M. Lazzeri, J. Moser, F. Mauri, A. Bachtold,  
*Transport Properties of Graphene in the High-Current Limit*  
Phys. Rev. Lett. **103**, 076601 (2009).
- [125] C. Gervais, L. Bonhomme-Courty, F. Mauri, F. Babonneau, C. Bonhomme  
*GIPAW (gauge including projected augmented wave) and local dynamics in  $\text{C}^{13}$  and  $\text{Si}^{29}$  solid state NMR: the study case of silsesquioxanes ( $\text{RSiO}_{1.5}$ )(8)*  
Phys. Chem. Chem. Phys. **11**, 6953 (2009).
- [124] E. Balan, P. Cartigny, M. Blanchard, D. Cabaret, M. Lazzeri, F. Mauri,  
*Theoretical investigation of the anomalous equilibrium fractionation of multiple sulfur isotopes during adsorption*  
Earth and Planetary Science Lett. **284**, 88 (2009).

- [123] N. Vandecasteele, M. Lazzeri, F. Mauri  
*Boosting Electronic Transport in Carbon Nanotubes by Isotopic Disorder*  
Phys. Rev. Lett. **102**, 196801 (2009).
- [122] G. Stoltz, M. Lazzeri, F. Mauri,  
*Thermal transport in isotopically disordered carbon nanotubes: a comparison between Green's functions and Boltzmann approaches*  
J. Phys.: Condens. Matter **21** 245302 (2009).
- [121] P. Gava, M. Lazzeri, A. M. Saitta, F. Mauri,  
*Ab initio study of gap opening and screening effects in gated bilayer graphene*  
Phys. Rev. **B 79**, 165431 (2009).
- [120] T. Charpentier, P. Kroll, F. Mauri,  
*First-Principles Nuclear Magnetic Resonance Structural Analysis of Vitreous Silica*  
J. Phys. Chem. **C 113**, 7917 (2009).
- [119] C. Gougoussis, M. Calandra, A. P. Seitsonen, C. Brouder, A. Shukla, F. Mauri,  
*Intrinsic charge transfer gap in NiO from Ni K-edge x-ray absorption spectroscopy*  
Phys. Rev. **B 79**, 045118 (2009).
- [118] M. Meheut, M. Lazzeri, E. Balan, F. Mauri,  
*Structural control over equilibrium silicon and oxygen isotopic fractionation: A first-principles density-functional theory study*  
Chemical Geology **258**, 28 (2009).
- [117] K. Bouchmella, S.G. Dutremez, B. Alonso, F. Mauri, C. Gervais, ,  
 *$H^1$ ,  $C^{13}$ , and  $N^{15}$  Solid-State NMR Studies of Imidazole- and Morpholine-Based Model Compounds Possessing Halogen and Hydrogen Bonding Capabilities*  
Crystall growth and design **8**, 3941 (2008).
- [116] C. Gervais, D. Laurencin, A. Wong, F. Pourpoint, J. Labram, B. Woodward, A.P. Howes, K.J. Pike, R. Dupree, F. Mauri, C. Bonhomme, M.E. Smith,  
*New perspectives on calcium environments in inorganic materials containing calcium-oxygen bonds: A combined computational-experimental  $Ca^{43}$  NMR approach*  
Chem. Phys. Lett. **464**, 42 (2008).
- [115] M. Lazzeri, C. Attaccalite, L. Wirtz, F. Mauri,  
*Impact of the electron-electron correlation on phonon dispersion: Failure of LDA and GGA DFT functionals in graphene and graphite*  
Phys. Rev. **B 78**, 081406 (2008) (Rapid Communications).
- [114] T. Wassmann, A.P. Seitsonen, A.M. Saitta, M. Lazzeri, F. Mauri,  
*Structure, stability, edge states, and aromaticity of graphene ribbons*  
Phys. Rev. Lett. **101**, 096402 (2008).

- [113] A. Gauzzi, N. Bendiab, M. d'Astuto, B. Canny, M. Calandra, F. Mauri, G. Loupiau, N. Emery, C. Herold, P. Lagrange, M. Hanfland, M. Mezouar, *Maximum  $T_c$  at the verge of a simultaneous order-disorder and lattice-softening transition in superconducting  $\text{CaC}_6$*   
Phys. Rev. **B 78**, 064506 (2008).
- [112] G. Ferlat, T. Charpentier, A.P. Seitsonen, A. Takada, M. Lazzeri, L. Cormier, G. Calas, F. Mauri, *Boroxol rings in liquid and vitreous  $\text{B}_2\text{O}_3$  from first principles*  
Phys. Rev. Lett. **101**, 065504 (2008).
- [111] F. Vasconcelos, S. Cristol, J.F. Paul, G. Tricot, J.P. Amoureux, L. Montagne, F. Mauri, L. Delevoye,  *$\text{O}^{17}$  solid-state NMR and first-principles calculations of sodium trimetaphosphate ( $\text{Na}_3\text{P}_3\text{O}_9$ ), tripolyphosphate ( $\text{Na}_5\text{P}_3\text{O}_{10}$ ), and pyrophosphate ( $\text{Na}_4\text{P}_2\text{O}_7$ )*  
Inorganic Chemistry, **47**, 7327 (2008).
- [110] M. Blanchard, M. Lazzeri, F. Mauri, E. Balan, *First-principles calculation of the infrared spectrum of hematite*  
American Mineralogist **93**, 1019 (2008).
- [109] M. Calandra, F. Mauri, *High- $T_c$  superconductivity in superhard diamondlike  $\text{BC}_5$*   
Phys. Rev. Lett. **101**, 016401 (2008).
- [108] A.M. Saitta, M. Lazzeri, M. Calandra, F. Mauri, *Giant nonadiabatic effects in layer metals: Raman spectra of intercalated graphite explained*  
Phys. Rev. Lett. **100**, 226401 (2008).
- [107] U. Gerstmann, A.P. Seitsonen, F. Mauri, *Ga self-interstitials in GaN investigated by ab-initio calculations of the electronic  $g$ -tensor*  
Physica Status Solidi **B 245**, 924 (2008).
- [106] E. Balan, K. Refson, M. Blanchard, S. Delattre, M. Lazzeri, J. Ingrin, F. Mauri, K. Wright, B. Winkler, *Theoretical infrared absorption coefficient of OH groups in minerals*  
American Mineralogist **93**, 950 (2008).
- [105] F. Tielens, C. Gervais, J.F. Lambert, F. Mauri, D. Costa, *Ab initio study of the hydroxylated surface of amorphous silica: A representative model*  
Chemistry of materials, **20**, 3336 (2008).
- [104] F. Pourpoint, C. Gervais, L. Bonhornme-Courty, F. Mauri, A. Alonso, C. Bonhomme, *Calcium phosphates: First-principles calculations vs. solid-state NMR experiments*  
Comptes rendu Chimie **11**, 398 (2008).

- [103] F. Pourpoint, C. Gervais, L. Bonhornme-Courry, T. Azais, C. Coelho, F. Mauri, A. Alonso, F. Babonneau, C. Bonhomme,  
*Calcium phosphates and hydroxyapatite: Solid-state NMR experiments and first-principles calculations*  
Appl. Mag. Res. **32**, 435 (2007).
- [102] F. Pourpoint, A. Kolassiba, C. Gervais, T. Azais, L. Bonhornme-Courry, C. Bonhomme, F. Mauri,  
*First principles calculations of NMR parameters in biocompatible materials science: The case study of calcium phosphates,  $\beta$ - and  $\gamma$ - $\text{Ca}(\text{PO}_3)_2$ . combination with MAS-J experiments*  
Chem. of Materials **19**, 6367 (2007).
- [101] S.A. Joyce, J.R. Yates, C.J. Pickard, and F. Mauri ,  
*A first principles theory of nuclear magnetic resonance J-coupling in solid-state systems*  
J. Chem. Phys. **127**, 204107 (2007).
- [100] M. Calandra, F. Mauri,  
*Electron-phonon coupling and electron self-energy in electron-doped graphene: Calculation of angular-resolved photoemission spectra*  
Phys. Rev. **B 76**, 205411 (2007).
- [99] M. Calandra, F. Mauri,  
*Electronic structure of heavily doped graphene: The role of foreign atom states*  
Phys. Rev. **B 76**, 161406 (2007) (Rapid Communications).
- [98] N. Bonini, M. Lazzeri, N. Marzari, F. Mauri,  
*Phonon Anharmonicities in Graphite and Graphene*  
Phys. Rev. Lett. **99**, 136803 (2007).
- [97] A. Das, A.K. Sood, A. Govindaraj, A.M. Saitta, M. Lazzeri, F. Mauri, C.N Rao  
*Doping in Carbon Nanotubes Probed by Raman and Transport Measurements*  
Phys. Rev. Lett. **99**, 136803 (2007).
- [96] M. d'Avezac, N. Marzari, F. Mauri  
*Spin and orbital magnetic response in metals: Susceptibility and NMR shifts*  
Phys. Rev. **B 76**, 165122 (2007).
- [95] J.R Yates, C.J. Pickard, F. Mauri  
*Calculation of NMR chemical shifts for extended systems using ultrasoft pseudopotentials*  
Phys. Rev. **B 76**, 024401 (2007).
- [94] E. Balan, M. Lazzeri, F. Mauri, G. Calas  
*Structure, reactivity and spectroscopic properties of minerals from lateritic soils: insights from ab initio calculations*  
Europ. J. of Soil Science **58**, 870 (2007).

- [93] M. Mèheut, M. Lazzeri, E. Balan and F. Mauri,  
*Equilibrium isotopic fractionation in the kaolinite, quartz, water system: Prediction from first-principles density-functional theory*  
Geochimica et Cosmochimica Acta **71**, 3170 (2007).
- [92] M. d'Astuto, M. Calandra, S. Reich, A. Shukla, M. Lazzeri, F. Mauri, J. Karpinski, N. D. Zhigadlo, A. Bossak, and M. Krisch ,  
*Weak anharmonic effects in  $MgB_2$ : A comparative inelastic x-ray scattering and Raman study*  
*Anharmonic effects in  $MgB_2$ : implications for the Isotope effect and interpretation of Raman spectra*  
Phys. Rev. **B 75**, 174508 (2007).
- [91] M. Calandra, M. Lazzeri, F. Mauri,  
*Anharmonic effects in  $MgB_2$ : implications for the Isotope effect and interpretation of Raman spectra*  
Physica C **456**, 38 (2007).
- [90] D. Cabaret, F. Mauri, G. S. Henderson,  
*Oxygen K-edge XANES of germanates investigated using first-principles calculations*  
Phys. Rev **B 75**, 184205 (2007).
- [89] N. Caudal, A. C. Saitta, M. Lazzeri, F. Mauri,  
*Kohn anomalies and non-adiabaticity in doped carbon nanotubes*  
Phys. Rev **B 75**, 115423 (2007).
- [88] S. Piscanec, M. Lazzeri, J. Robertson, A. C. Ferrari, F. Mauri,  
*Optical Phonons in Carbon Nanotubes: Kohn Anomalies, Peierls Distortions and Dynamic Effects*  
Phys. Rev **B 75**, 035427 (2007).
- [87] S. Pisana, M. Lazzeri, C. Casiraghi, K. S. Novoselov, A. K. Geim, A. C. Ferrari, F. Mauri,  
*Born-Oppenheimer Breakdown in Graphene*  
Nature Materials **6**, 198 (2007).
- [86] M. Lazzeri, F. Mauri,  
*Non-adiabatic Kohn-anomaly in a doped graphene monolayer*  
Phys. Rev. Lett. **97**, 266407 (2006).
- [85] M. Calandra, F. Mauri,  
*Origin of superconductivity of  $CaC_6$  and of other intercalated graphites*  
Physica Status Solidi **B 243**, 3458 (2006).
- [84] A.C. Ferrari, J.C. Meyer, V. Scardaci, C. Casiraghi, M. Lazzeri, F. Mauri, S. Piscanec, D. Jiang, K.S. Novoselov, S. Roth, A.K. Geim,  
*Raman Spectrum of Graphene and Graphene Layers*  
Phys. Rev. Lett. **97**, 187401 (2006).

- [83] M. Calandra, F. Mauri,  
*Possibility of superconductivity in graphite intercalated with alkaline earths investigated with density functional theory*  
Phys. Rev. **B 74**, 094507 (2006).
- [82] F. Pietrucci, M. Bernasconi, C. Di Valentin, F. Mauri, C. J. Pickard,  
*EPR g-tensor of paramagnetic centers in yttria-stabilized zirconia from first principles*  
Phys. Rev. **B 73**, 134112 (2006).
- [81] C. Gervais, C. Coelho, T. Azais, J. Maqueta, G. Laurent, F. Pourpoint, C. Bonhomme, P. Florian, B. Alonso, G. Guerrero, P.H. Mutin and F. Mauri,  
*First principles NMR calculations of phenylphosphinic acid  $C_6H_5HPO(OH)$ : Assignments, orientation of tensors by local field experiments and effect of molecular motion*  
Journal of Magnetic Resonance **187**, 131 (2007).
- [80] M. Lazzeri, F. Mauri,  
*Coupled dynamics of electrons and phonons in metallic nanotubes: current saturation from hot phonons generation*  
Phys. Rev. **B 73**, 165419 (2006).
- [79] M.A.L. Marques, M. d’Avezac, F. Mauri,  
*Magnetic response of carbon nanotubes from ab initio calculations*  
Phys. Rev. **B 73**, 125433 (2006).
- [78] M. Lazzeri, S. Piscanec, F. Mauri, A.C. Ferrari, J. Robertson,  
*Phonon linewidths and electron-phonon coupling in graphite and nanotubes* .  
Phys. Rev. **B 73**, 155426 (2006).
- [77] E. Balan, M. Lazzeri, G. Morin, F. Mauri,  
*First-principles study of the OH-stretching modes of gibbsite*.  
American Mineralogist **91**, 115 (2006).
- [76] S. Piscanec, F. Mauri, A.C. Ferrari, M. Lazzeri and J. Robertson,  
*Ab initio resonant Raman spectra of diamond-like carbons*.  
Diamond and Related Materials **14**, 1078 (2005).
- [75] M. Lazzeri, S. Piscanec, F. Mauri, A.C. Ferrari, J. Robertson,  
*Electron transport and hot phonons in carbon nanotubes*.  
Phys. Rev. Lett. **95**, 236802 (2005).
- [74] M. Calandra, F. Mauri,  
*Theoretical explanation of superconductivity in  $C_6Ca$* .  
Phys. Rev. Lett. **95**, 237002 (2005) .
- [73] S. Rossano, F. Mauri, C.J. Pickard, I. Farnan,  
*First-principles calculation of  $O^{17}$  and  $Mg^{25}$  NMR shieldings in MgO at finite temperature: Rovibrational effect in solids*  
J. Phys. Chem **B 109**, 7245 (2005).

- [72] J.R. Yates, S.E. Dobbins, C.J. Pickard, F. Mauri, P.Y. Ghi, R.K. Harris,  
*A combined first principles computational and solid-state NMR study of a molecular crystal: flurbiprofen.*  
Phys. Chem. Chem. Phys. **7**, 1402 (2005).
- [71] J.R. Yates, T.N. Pham, C.J. Pickard, F. Mauri, A.M. Amado, A.M. Gil, S.P. Brown,  
*An investigation of weak CH center dot center dot center dot O hydrogen bonds in maltose anomers by a combination of calculation and experimental solid-state NMR spectroscopy.*  
J. Am. Chem. Soc. **127**, 10216 (2005).
- [70] C. Gervais, R. Dupree, K.J. Pike, Ch. Bonhomme, M. Profeta, C.J. Pickard, F. Mauri,  
*Combined first-principles computational and experimental multinuclear solid-state NMR investigation of amino acids,*  
J. Phys. Chem **A 109**, 6960 (2005).
- [69] L. Wirtz, M. Lazzeri, F. Mauri, and A. Rubio,  
*Raman spectra of BN nanotubes: Ab initio and bond-polarizability model calculations*  
Phys. Rev. **B 71**, 241402 (2005) (Rapid Communications).
- [68] E. Gaudry, D. Cabaret, Ph. Sainctavit, C. Brouder, F. Mauri, J. Goulon, A. Rogalev,  
*Structural relaxations around Ti, Cr and Fe impurities in  $\alpha$ -Al<sub>2</sub>O<sub>3</sub> brobed by x-ray absoption near edge structure combined with first-principles calculations*  
J. Phys.: Condens. Matter **17** 5467 (2005).
- [67] M. d’Avezac, M. Calandra, F. Mauri,  
*Density functional theory description of hole-trapping in SiO<sub>2</sub>: A successful self-interaction-corrected approach*  
Phys. Rev. **B 71**, 205210 (2005).
- [66] M. Cococcioni, F. Mauri, G. Ceder, N. Marzari,  
*Electronic-enthalpy functional for finite systems under pressure*  
Phys. Rev. Lett., **94** 145501 (2005).
- [65] M. Calandra, F. Mauri  
*Electron-phonon coupling and phonon self-energy in MgB<sub>2</sub>: Interpretation of MgB<sub>2</sub> Raman spectra?*  
Phys. Rev **B 71**, 064501 (2005)
- [64] M. Benoit, M. Profeta, F. Mauri, C.J. Pickard, M. E. Tuckerman  
*First-principles calculation of the <sup>17</sup>O NMR parameters of a calcium aluminosilicate glass*  
J. Phys. Chem. **B 109**, 6052 (2005).

- [63] U. Hantsch, B. Winkler, C.J. Pickard, J. Gale, M. Warren, V. Milman, F. Mauri  
*Theoretical Investigation of Moganite*  
 Eur. J. Mineral. **17**, 21 (2005).
- [62] E. Balan, M. Lazzeri, A.M. Saitta, T. Allard, Y. Fuchs, F. Mauri  
*First-principles study of OH stretching modes in kaolinite, dickite and nacrite*  
 American Mineralogist **90**, 50 (2005).
- [61] A.A. Sabouri-Dodaran, M. Marangolo, Ch. Bellin, F. Mauri, G. Fiquet and G. Louprias, M. Mezouar, W. Crichton, C. Hérold, F. Rachdi, S. Rabii  
*Equations of state of  $Rb_xC_{60}$  ( $x=3, 4$ , and  $6$ )*  
 Phys. Rev. **B**, 174114 (2004).
- [60] S. Piscanec, M. Lazzeri, F. Mauri, A.C. Ferrari, J. Robertson  
*Kohn anomalies and electron-phonon interactions in graphite*  
 Phys. Rev. Lett. **93**, 185503 (2004).
- [59] M. Profeta, M. Benoit, F. Mauri, C.J. Pickard  
*First-principles calculation of the  $^{17}O$  NMR parameters in Ca oxide and Ca aluminosilicates: the partially covalent nature of the Ca-O bond, a challenge for density functional theory*  
 J. Am. Chem. Soc. **126**, 12628 (2004).
- [58] C. Gervais, M. Profeta, F., C.J. Pickard, F. Mauri  
*Ab-initio calculations of NMR parameters of highly coordinated oxygen sites in aluminosilicates*  
 J. Phys. Chem. **B** **108**, 13249 (2004).
- [57] J.R. Yates, C.J. Pickard, M. C. Payne, R. Dupree, M. Profeta, and F. Mauri  
*Theoretical investigation of oxygen-17 NMR shielding and electric field gradient in glutamic Acid Polymorphs*  
 J. Phys. Chem. **A** **108**, 6032 (2004).
- [56] M. Calandra, N. Vast and F. Mauri,  
*Superconductivity from doping Boron icosahedra*  
 Phys. Rev. **B** **69**, 224505 (2004).
- [55] J. Kokubun, K. Ishida, D. Cabaret, F. Mauri, R.V. Vedrinskii, V.L. Kraizman, A.A. Novakovich, E.V. Krivitskii, and V.E. Dmitrienko  
*Resonant diffraction in  $FeS_2$ : Determination of the x-ray polarization anisotropy of iron atoms*  
 Phys. Rev. **B** **69**, 245103 (2004).
- [54] Th. Charpentier, S. Ispas, M. Profeta, F. Mauri, C. J. Pickard  
*First Principles Calculation of  $^{17}O$ ,  $^{29}Si$  and  $^{23}Na$  NMR Spectra of Sodium Silicate Crystals and Glasses*  
 J. Phys. Chem. **B** **108**, 4147 (2004).



- [53] C. Gervais, M. Profeta, V Lafond, T. Azais, H. Mutin, C.J. Pickard, F. Mauri, F. Babonneau  
*Combined ab initio computational and experimental multinuclear solid-state magnetic resonance study of phenylphosphonic acid*  
 Magnetic Resonance in Chemistry **42**, 445 (2004).
- [52] M. Lazzeri, M. Calandra and F. Mauri,  
*Anharmonic phonon frequency shift in  $MgB_2$*   
 Phys. Rev. B **68**, 220509 (2003) (Rapid Communications).
- [51] M. Lazzeri and F. Mauri,  
*High-order density-matrix perturbation theory*  
 Phys. Rev. B **68**, 161101 (2003) (Rapid Communications).
- [50] C. J. Pickard and F. Mauri,  
*Nonlocal pseudopotentials and magnetic fields*  
 Phys. Rev. Lett. **91**, 196401 (2003).
- [49] I. Farnan, E. Balan, C. J. Pickard, F. Mauri,  
*The Effect of Radiation Damage on Local Structure in Crystalline  $ZrSiO_4$ : Investigating the  $^{29}Si$  NMR Response to Pressure in Zircon and Reidite*  
 American Mineralogist **88**, 1663 (2003).
- [48] E. Balan, F. Mauri, C.J. Pickard, I. Farnan, and G. Calas,  
*The aperiodic state of zircon: an ab initio molecular dynamics study*  
 American Mineralogist **88**, 1769 (2003).
- [47] E. Gaudry, A. Kiratisin, Ph. Sainctavit, Ch. Brouder, F. Mauri, A. Ramos, A. Rogalev, J. Goulon,  
*Structural and electronic relaxations around substitutional  $Cr^{3+}$  and  $Fe^{3+}$  ions in corundum*  
 Phys. Rev. B **67**, 94108 (2003).
- [46] J. R. Yates, C. J. Pickard, M. C. Payne, and F. Mauri,  
*Relativistic NMR Chemical Shifts of Heavy Nuclei with Pseudopotentials and the Zeroth Order Regular Approximation*  
 J. Chem. Phys. **118**, 5746 (2003).
- [45] A. Shukla, M. Calandra, M. d'Astuto, M. Lazzeri, F. Mauri, C. Bellin, M. Krisch, J. Karpinski, S.M. Kazakov, J. Jun, D. Daghero, K. Parlinski,  
*Phonon dispersion and lifetimes in  $MgB_2$*   
 Phys. Rev. Lett. **90**, 095506 (2003).
- [44] M. Profeta, F. Mauri, C. J. Pickard,  
*Accurate first principles prediction of  $^{17}O$  NMR parameters in  $SiO_2$ : assignment of the zeolite Ferrierite spectrum.*  
 J. Am. Chem. Soc. **125**, 541 (2003).

- [43] M. Lazzeri, F. Mauri,  
*First principles calculation of vibrational Raman spectra in large systems: signature of small rings in crystalline SiO<sub>2</sub>*  
Phys. Rev. Lett. **90**, 036401 (2003).
- [42] M. Taillefumier, D. Cabaret, A.-M. Flank, and F. Mauri,  
*X-ray absorption near-edge structure calculations with pseudopotentials: Application to the K-edge in diamond and alpha-quartz*  
Phys. Rev. **B 66**, 195107 (2002).
- [41] E. Balan, F. Mauri, C. Lemaire, C. Brouder, F. Guyot, A. M. Saitta, B. Devouard,  
*Multiple ionic-plasmon resonances in naturally-occurring multiwall nanotubes: infrared spectra of chrysotile asbestos*  
Phys. Rev. Lett. **89**, 177401 (2002).
- [40] E. Balan, A. M. Saitta, F. Mauri, C. Lemaire, and F. Guyot,  
*First-principles calculation of the infrared spectrum of lizardite*  
American Mineralogist, **87** 1286 (2002).
- [39] C. J. Pickard and F. Mauri,  
*First-principles theory of the EPR g-tensor in solids: Defects in quartz*  
Phys. Rev. Lett. **88**, 086403 (2002).
- [38] E. Balan, A. M. Saitta, F. Mauri, and G. Calas,  
*First-principle modeling of the infrared spectrum of kaolinite*  
American Mineralogist **86**, 1321 (2001).
- [37] V. E. Dmitrienko, M. Kléman, and F. Mauri,  
*Silicon and carbon structures with icosahedral order, phason jumps, and disorder*,  
Ferroelectrics **250**, 213 (2001).
- [36] F. Mauri, N. Vast, and C. J. Pickard,  
*Atomic Structure of Icosahedral B<sub>4</sub>C Boron Carbide from a First Principles Analysis of NMR Spectra*  
Phys. Rev. Lett. **87**, 085506 (2001).
- [35] M. Profeta and F. Mauri,  
*Theory of resonant Raman scattering of tetrahedral amorphous carbon*  
Phys. Rev. **B 63**, 245415 (2001).
- [34] C. J. Pickard and F. Mauri,  
*All-electron magnetic response with pseudopotentials: NMR chemical shifts*  
Phys. Rev. **B 63**, 245101 (2001).
- [33] E. Balan, F. Mauri, J.-P. Muller, and G. Calas,  
*First principle study of water adsorption on the (100) surface of zircon: implications for zircon dissolution*  
American Mineralogist **86**, 910 (2001).

- [32] F. Mauri, A. Pasquarello, B. G. Pfrommer, Y. Yoon, and S. G. Louie,  
*Si-O-Si bond-angle distribution in vitreous silica from first-principles  $^{29}\text{Si}$  NMR analysis*  
Phys. Rev. **B 62**, R4786 (2000) (Rapid Communications).
- [31] B. G. Pfrommer, F. Mauri, and S. G. Louie,  
*NMR chemical shifts of ice and liquid water: the effects of condensation.*  
J. Am. Chem. Soc. **122**, 123 (2000).
- [30] F. Buda, P. Giannozzi, and F. Mauri,  
*Density Functional Theory Study of the Structure and  $^{13}\text{C}$  Chemical Shifts of Retinylidene Iminium Salts*  
J. Phys. Chem. **104**, 9048 (2000).
- [29] K. Morgenstern, E. Laegsgaard, I. Stensgaard, F. Besenbacher, M. Bohringer, W.D. Schneider, R. Berndt, F. Mauri, A. De Vita, R. Car,  
*Stability of two-dimensional nanostructures.*  
App. Phys. **A 69**, 559 (1999).
- [28] V.E. Dmitrienko, M. Kléman, and F. Mauri,  
*Quasicrystal-related phases in tetrahedral semiconductors: Structure, disorder, and ab-initio calculations.*  
Phys. Rev. **B 60**, 9383 (1999).
- [27] M. Böhringer, K. Morgenstern, W.-D. Schneider, F. Mauri, A. de Vita, R. Car,  
*Two-dimensional self-assembly of supramolecular clusters and chains.*  
Phys. Rev. Lett. **83**, 324 (1999).
- [26] F. Mauri, B. Pfrommer, and S. G. Louie,  
*Signature of surface states on NMR chemical shifts: A theoretical prediction.*  
Phys. Rev. **B 60**, 2941 (1999).
- [25] F. Mauri and A. Dal Corso,  
*Vibrational properties of tetrahedral amorphous carbon from first principles.*  
App. Phys. Lett. **75**, 644 (1999).
- [24] T. Gregor, F. Mauri and R. Car,  
*A Comparison of Methods for the Calculation of NMR Chemical Shifts.*  
J. Chem. Phys. **111**, 1815 (1999)
- [23] Y. Yoon, B. G. Pfrommer, F. Mauri, and S. G. Louie,  
*Ab-initio NMR chemical shift of hard carbon nitride compounds.*  
Phys. Rev. Lett. **80**, 3388 (1998).
- [22] F. Mauri, B. Pfrommer, and S. G. Louie,  
*Ab-initio NMR chemical shift in diamond, CVD diamond, and amorphous carbon.*  
Phys. Rev. Lett. **79**, 2340 (1997).

- [21] W. A. Caldwell, J. H. Nguyen, B. Pfrommer, F. Mauri, S. G. Louie, and R. Jeanloz  
*Structure, bonding and geochemistry of Xenon at high pressures*  
Science **277**, 930 (1997).
- [20] K. Ohno, F. Mauri, and S. G. Louie,  
*Magnetic susceptibility of semiconductors by an all-electron mixed-basis approach.*  
Phys. Rev. **B 56**, 1009 (1997).
- [19] P. Fernández, A. Dal Corso, F. Mauri, and A. Baldereschi  
*First-principles calculation of Wannier orbitals: application to silicon and gallium arsenide.*  
Phys. Rev. **B 55**, 1909 (1997) (Rapid Communications).
- [18] F. Mauri, B. Pfrommer, and S. G. Louie,  
*Ab-initio theory of NMR chemical shifts in solids and liquids*  
Phys. Rev. Lett. **77**, 5300 (1996).
- [17] F. Mauri, O. Zakharov, S. de Gironcoli, S. G. Louie, and M. L. Cohen  
*Phonon softening and superconductivity in tellurium under pressure.*  
Phys. Rev. Lett. **77**, 1151 (1996).
- [16] F. Mauri and S.G. Louie  
*Magnetic susceptibility of insulators from first principle.*  
Phys. Rev. Lett. **76**, 4246 (1996).
- [15] A. Canning, G. Galli, F. Mauri, A. De Vita and R. Car  
*Tight-binding molecular dynamics on massively parallel computer - an orbital decomposition approach*  
Comp. Phys. Commun. **94**, 89 (1996).
- [14] A. Dal Corso, F. Mauri and A. Rubio  
*Density-functional theory of the nonlinear optical susceptibility: application to cubic semiconductor*  
Phys. Rev. **B 53**, 15638 (1996).
- [13] F. Mauri and R. Car  
*First-principle study of excitonic self-trapping in diamond*  
Phys. Rev. Lett. **75**, 3166 (1995).
- [12] J.N. Kim, F. Mauri, and G. Galli  
*Total-energy global optimisations using nonorthogonal localised orbitals*  
Phys. Rev. **B 52**, 1640 (1995).
- [11] G. Galli and F. Mauri  
*Large scale quantum simulations: C<sub>60</sub> impacts on a semiconducting surface*  
Phys. Rev. Lett. **73**, 3471 (1994).
- [10] F. Tassone, F. Mauri and R. Car  
*Acceleration Schemes for ab-initio molecular dynamics and electronic structure calculations*  
Phys. Rev. **B 50**, 10561 (1994).

- [9] A. Dal Corso and F. Mauri  
*Wannier and Bloch orbital computation of the nonlinear susceptibility*  
Phys. Rev. **B 50**, 5756 (1994) (Rapid Communications).
- [8] F. Mauri and G. Galli  
*Quantum molecular dynamics simulation with linear system-size scaling*  
Phys. Rev. **B 50**, 4316 (1994).
- [7] F. Mauri, R. Car and E. Tosatti  
*Canonical statistical averages of coupled quantum-classical systems*  
Europhys. Lett. **24**, 431 (1993).
- [6] F. Mauri, G. Galli and R. Car  
*Orbital formulation for electronic-structure calculations with linear system-size scaling*  
Phys. Rev. **B 47**, 9973 (1993) (Rapid Communications).
- [5] F. Mauri and E. Arimondo  
*Two dimension elective coherent population trapping controlled by a phase shift*  
Appl. Phys. **B 54**, 420 (1992).
- [4] F. Mauri and E. Arimondo  
*Coherent trapping sub-recoil cooling in two dimensions aided by a force*  
Europhys. Lett. **16**, 717 (1991).
- [3] F. Papoff, F. Mauri and E. Arimondo  
*Transient velocity selective coherent population trapping in one dimension*  
J. Opt. Soc. Amer. **B 9**, 321 (1992).
- [2] O.A. Kocharovskaya, F. Mauri and E. Arimondo  
*Laser without population inversion and coherent trapping*  
Opt. Commun. **84**, 393 (1991).
- [1] F. Mauri, F. Papoff and E. Arimondo  
*Velocity selective coherent population trapping in different configurations and dimensions*  
Proceedings LIKE Workshop, Elba, Italy May 1990, ed. L. Moi et al, pag. 89.

## ORGANIZED WORKSHOPS AND CONFERENCES

15 Mai- 9 June 2000 ICTP, Trieste (Italy)

ICTP Spring college on “Electronic structure approaches to the physics of materials”

July 2001 CECAM, Lyon (France)

CECAM/Psi-K workshop “Application of first-principle methods in geophysics”

8-10 January 2009 ICTP, Trieste (Italy)

14th International Workshop on Computational Physics and Materials Science: Total Energy and Force Methods

9-12 June 2009 E-MRS Spring Meeting Strasbourg (France)

E-MRS Spring Meeting. Symposium N: Carbon Nanotubes and Graphene Low Dimensional Carbon Structures

15-17 June 2009 CECAM, Lausanne (Swiss)

CECAM/Psi-K workshop “Orbital Magnetization in Condensed Matter”

## SERVICES ON PROGRAM COMMITTEES OF INTERNATIONAL CONFERENCES

2008, 2009, 2010, 2011, 2012, 2013 editions of the International Winterschool on Electronic Properties of Novel Materials  
Kirchberg (Austria)

21-26 June 2009, Beijing, China

NT09: Tenth International Conference on the Science and Application of Nanotubes

Since 2011, committee member of the

International Workshop on Computational Physics and Materials Science: Total Energy and Force Methods

## ADMINISTRATION OF SCIENCE

I am a member of the *Comité national de la recherche scientifique* of CNRS, section 3 (condensed matter, electronic structure and properties), nominated member for 4 years (2013-2017). The comité national selects, at the national level, the researchers to be recruited on permanent positions (about 20 positions per year), judges the activities of CNRS agents and of CNRS laboratories, selects the agents to be promoted. My duties in the comité national require about two months of full work per year.

At the “Institut de Minéralogie et de Physique des Milieux Condensés” (IMPMC) I established and head a research group in quantum theory of materials that involves 6 permanent researchers. I am also member of the scientific committee and one of the 6 members of the *cellule de direction* of the IMPMC.

I am the coordinator of the axis *Méthodologies pour la modélisation des matériaux* of the french Labex Matisse

I am a member of Scientific Advisory Committee of Psi-k, an organization to support European research and researchers in ab-initio material science.

## GRANTS/FUNDING

The major support for my research in France has been provided by the CNRS that hired, on permanent positions for my research groups, two computer scientists (in charge of the development of first-principles codes) and three researchers, namely: October 2001-, Michele Lazzeri, Chargé de recherche CNRS (now Directeur de recherche)

October 2003-, Matteo Calandra, Chargé de recherche CNRS (now Directeur de recherche)

October 2010-, Michele Casula, Chargé de recherche CNRS

December 2004-2008, Ari P. Seitsonen, Ingénieur de recherche CNRS

December 2010-, Lorenzo Paulatto, Ingénieur de recherche CNRS

I am the National-Coordinator and Principal Investigator of the ANR national-French grant: on “Ab-initio Coupled Charge and Thermal Transport in Nanostructures”

January 2009-June 2013

Total founding: 639572 Euros on three nodes

Founding of our theory group: 216620 Euros

I am a Principal Investigator of the EU graphene flagship initiative

October 2013-March 2016

Founding of our theory group: 225000 Euros

I am co-investigator (PI Abhay Shukla) of the the ANR national-French grant on “SUPERTRAMP - Beyond Graphene: Doping, superconductivity and Phase transitions in 2D”

January 2012-December 2014

Founding of our theory group: 50000 Euros

I am co-investigator (PI Matteo Calandra) of the the ANR national-French grant: on “Electric transport and superconductivity in Transition Metal Dichalcogenides nanolayers”

January 2014-December 2017

Founding of our theory group: 207584 Euros

I received support

from the European Union to hire three Marie-Curie individual-fellowship postdocs (two-years each)

from the CNRS to hire a two-year postdoctoral research

## INVITED TALKS AT CONFERENCES AND WORKSHOPS 2003-

*Ab-initio calculation of vibrational Raman spectra in large systems*

16-18 January 2003, Trieste (Italy)

XI International Workshop on computational physics and material science

*Role of anharmonicity in phonon frequencies and lifetimes of MgB<sub>2</sub>*

2-4 July 2003 Rome (Italy)

Workshop: Open questions in understanding the superconducting and normal state properties of MgB

*Ab-initio simulation of NMR and EPR spectra in solids*

1-4 September 2004, Genoa (Italy)

Conference on computational physics 2004

*Ab-initio simulation of NMR spectra in solids*

5-11 September 2004, Lille (France)

AMPERE/EENC European conference on NMR and EPR

*Pseudopotential Hamiltonian in Magnetic field: the orbital magnetism within a pseudopotential framework*

4-6 July 2005, Lyon (France)

Cecam workshop: The anomalous Hall effect: Recent advances via the geometric-phase approach

*Simulations of spectroscopies by first principles codes: a useful interpretation tool for experimental data that can be accessible outside the electronic-structure community*

12-13 July 2005, Rome (Italy)

ESF driven workshop on: European cyberinfrastructure for atomistic simulation of hard, soft, and biological matter

*Calculation of vibrational Raman spectra in large systems by high-order density matrix perturbation theory*

17-21 September 2005 Schwäbisch Gmünd (Germany)

Psi-K international conference: Toward atomistic materials design

*Electron-phonon coupling and superconductivity in Ca intercalated graphite*

12-14 January 2006, Cambridge (UK)

International workshop: Recent developments in computational electronic structure

*Hot phonons in carbon nanotubes and superconductivity in Ca intercalated graphite*

4-11 March 2006, Kirchberg (Austria)

International Winterschool on Electronic Properties of Novel Materials (IWEPNM) 2006

*Electron-phonon coupling, Raman spectra, electron transport and hot phonons in carbon nanotubes*

29 May-June 2006, Nice (France)

The European Materials Research Society (E-MRS) Spring Meeting



*Hole self-trapping by Al impurity in quartz: a challenge for DFT*

28-31 August 2006, Trieste (Italy)

International Symposium on the Jahn-Teller Effects: Novel Aspects in Orbital Physics and Vibronic Dynamics of Molecules and Crystals

*Superconductivity in intercalated graphites*

21-23 September 2006, Palau (Italy)

International workshop in Computational Material Science

*Non-adiabatic vibrations in doped graphene*

11-13 January 2007, Trieste (Italy)

XI International Workshop on computational physics and material science

*Non-adiabatic vibrations in doped graphene*

28 May- 1 June 2007, Strasbourg (France)

The European Materials Research Society (E-MRS) Spring Meeting

*Current saturation and hot phonons in carbon nanotubes at high field*

June 21-22 2007, Trieste (Italy)

International workshop in honor of Roberto Car's 60th birthday

*Non-adiabatic vibrations in doped graphene*

28-30 May 2007, San Sebastian (Spain)

Ab-initio approaches to electron-phonon coupling and superconductivity

*Electron-phonon coupling and superconductivity in intercalated graphites from first-principles*

28-30 September 2007, Manchester (UK)

Workshop on solving the Bogoliubov-de Gennes and Gross-Pitaevskii equations for superconductors, superfluids and BEC

*Probing the doping in metallic and semiconducting carbon nanotubes by Raman*

1-8 March 2008, Kirchberg (Austria)

International Winterschool on Electronic Properties of Novel Materials (IWEPNM) 2008

*Giant violation of the adiabatic Born-Oppenheimer approximation in the vibrational Raman spectra of layered metals*

23-27 June 2008, Trieste (Italy)

CPMD2008 - Conference on modeling and computation of structure and dynamics of condensed phase systems

*Giant violation of the adiabatic Born-Oppenheimer approximation in the vibrational Raman spectra of layered metals*

25-29 August 2008, Trieste (Italy)

ICTP Conference Graphene Week 2008

*Stability, chemical structure and Clar's aromatic sextets in graphene hydrogenated edges*

7-14 March 2009, Kirchberg (Austria)

International Winterschool on Electronic Properties of Novel Materials (IWEPNM) 2009

*Electron-phonon interaction within GW in graphite and graphene: correlation effects beyond DFT*

21-22 March 2009, Berkeley (US)

Frontiers in Condensed Matter Physics and Nanoscience: A Symposium in Honor of the 60th Birthday of Steven G. Louie

*Stability, chemical structure and Clar's aromatic sextets in graphene hydrogenated edges*

22-26 March 2009, Lake City (US)

237th ACS National Meeting and Exposition

*Stability, chemical structure and Clar's aromatic sextets in graphene hydrogenated edges*

31 August - 4 September March 2009, Lyon (France)

DFT09- 13th International Conference on the Applications of Density Functional Theory in Chemistry and Physics

*Transport, current saturation and hot phonons at high bias in metallic nanotubes and graphene*

5-8 October 2009, centre Paul Langevin, Aussois (France)

Plenary conference of the GDR "Mesoscopic Quantum Physics"

*Three lectures on graphene: Raman spectroscopy, charge transport, ribbons and edges*

14-25 December 2009, Hanoi (Vietnam)

ICTP Regional School on Physics at the Nanoscale

*Transport in graphene at high bias: current saturation and Klein tunneling*

6-13 March 2010, Kirchberg (Austria)

International Winterschool on Electronic Properties of Novel Materials (IWEPNM) 2010

*Transport in graphene at high bias: current saturation and Klein tunneling*

15 - 18 August 2010, Physikzentrum Bad Honnef Bonn (Germany)

457. WE-Heraeus-Seminar: Graphene Electronics - Material, Physics and Devices

*Two lectures on charge transport in graphene and carbon nanotubes*

17 - 28 May 2010, ICTP Trieste (Italy)

ICTP Spring College on Computational Nanoscience

*Tutorial lecture: Ab-initio calculation of resonant Raman spectra in graphene*

26 Feb - 5 March 2011, Kirchberg (Austria)

International Winterschool on Electronic Properties of Novel Materials (IWEPNM) 2011

*How to Make Graphene Superconducting*

29 August - 3 September 2011, Cambridge (UK)

SCES 2011 - Commemorating 100 Years of Superconductivity

*How to Make Graphene Superconducting*

14-16 September, 2011, Lancaster (UK)

Workshop on First-Principles Computational Methodologies for Two-Dimensional Materials

*Resonant Raman spectra in graphene*

23-17 January 2012, Ecully (France)

Annual meeting of the GDR-I Graphene and Nanotubes Science and Applications

*Charge density waves, pseudo-gaps, superconductivity in bulk and exfoliated transition metal dichalcogenides*

25-27 September 2012, Abbaye des Premontres Nancy (France)

DARPA Workshop: Two-Dimensional Materials Beyond Graphene

*Superconducting graphene*

23-26 April 2013, Bilbao (Spain)

Graphene 2013

*Electron-phonon interaction and superconductivity in graphene*

24-28 June 2013, Aalto University, Espoo (Finland)

NT13

*Electron-phonon interaction and superconductivity in intercalated graphite and graphene*

9-13 September 2013, Milano (Italy)

FISMAT

*Stochastic Self-Consistent Harmonic Approximation: Inverse Isotope Effect in Palladium Hydride superconductors*

November 2013, Trieste (Italy)

Frontiers of Condensed Matter Physics

*Stochastic Self-Consistent Harmonic Approximation: Inverse Isotope Effect in Palladium Hydride superconductors*

17-20 June 2014, Trento (Italy)

ECT\* workshop on "New Frontiers in Multiscale Modelling of Advanced Materials - MAM1"

*Phonon-mediated superconductivity in ZrNCl: universal enhancement in 2D materials in the low doping limit*

9-11 July 2014, Dublin (Ireland)

Flatlands Beyond Graphene (FBG) 2014

Nome e cognome: Alessandro Veneziani  
Data di nascita: 25 Maggio 1969  
PhD (data e università): 1998 – Università di Milano

Posizione richiesta (I fascia, II fascia, RTDB o RTDA): II Fascia (PA)  
Settore Concorsuale: 01  
Settore Scientifico Disciplinare: A5 (ex MAT08)  
Settore Concorsuale:

Posizione attuale: Professore associato in attesa di promozione (Aprile 2015)  
Università o centro di ricerca estero e data di ingresso nella posizione:  
Department of Mathematics & Computer Science, Emory University, Atlanta (GA) USA  
Da Settembre 2007

Altre posizioni nell'ultimo quinquennio:  
External Program Faculty Department of Biomedical Engineering, Georgia Institute of Technology  
Atlanta (GA) USA (dal 2009)  
Visiting Professor, Università di Bergamo, Luglio 2013

Numero di pubblicazioni ISI (specificare fonte): 80 (Scopus)  
Fattore H (specificare fonte): Google Scholar: 26 (dal 2009: 24); SCOPUS: 18  
h-c (basato su Scopus): 12  
Numero totale di citazioni (specificare fonte): Google Scholar: 2828 (dal 2009: 1971)  
SCOPUS: 1150 (dal 2010: 669)  
Soglie Mediane ANVUR per il Settore Concorsuale (per Ordinario se il posto richiesto è di Ordinario, per Associato negli altri casi).  
Num Articoli Normalizzato: 15.5 (Veneziani: 63 – da SCOPUS)  
Num Citazioni Normalizzato: 15.72 (Veneziani: 63.88 – da SCOPUS)  
h-c: 7 (Veneziani: 12 – da SCOPUS)

Eventuale partecipazione all'abilitazione nazionale e tutti i risultati conseguiti (sia positivi che negativi ottenuti):  
Valutato idoneo nella tornata 2012 per la Prima Fascia

Risulta vincitore di ERC o coordinatore di progetto Europeo? Se sì, specificare.  
E' stato coordinatore di una unità nel progetto Europeo Hemodel, PI: Alfio Quarteroni  
Titolare di 2 Progetti National Science Foundation (248,00USD and 150,000 USD)

Motivazione sintetica della richiesta (70 parole massimo) (possibilmente una sola frase, comprensibile da qualunque membro della Facoltà):  
Veneziani opera nel settore della Matematica Applicata, sviluppo di modelli e metodi numerici, con attenzione allo studio della fluidodinamica numerica e delle malattie cardiovascolari. Ha sviluppato notevoli competenze nello sviluppo di metodi di approssimazione numerica per equazioni a derivate parziali e per calcolo scientifico ad alte prestazioni. Le sue competenze sul metodo degli elementi finiti sono molto interessanti e utili per il Corso di Laurea Triennale in Matematica, per il corso di Laurea Magistrale in Matematica per le Applicazioni e per i corsi di area ANALISI NUMERICA (MAT/08) offerti dal Dipartimento.

Se

Principali risultati ottenuti (250 Parole massimo):

Veneziani ha focalizzato la sua ricerca sui metodi numerici per la risoluzione di problemi di fluidodinamica per problemi industriali e biomedici. In particolare, le scienze cardiovascolari si stanno avvantaggiando notevolmente dell'uso di modelli matematici e numerici. Veneziani ha dato importanti contributi in questo contesto, in particolare promuovendo (i) nuovi metodi per la risoluzione efficiente delle equazioni di Navier-Stokes per fluidodinamica incomprimibile (metodo di Yosida); metodi per la modellazione multiscala del sistema circolatorio (approccio multiscala geometrico); metodi per la risoluzione e il preconditionamento delle equazioni della elettrocardiologia, anche in contesti adattivi (modello Hybridomain); metodi per l'assimilazione variazionale dei dati e la stima dei parametri in problemi di biomeccanica. Al momento, la sua ricerca è rivolta a metodi di riduzione gerarchica di modello per problemi di fluidodinamica interna; alla stima di parametri mediante metodi variazionale e di riduzione di modello (ad esempio tramite Proper Orthogonal Decomposition); all'applicazione di image processing, modelli numerici e calcolo ad alte prestazioni e su cloud per problemi di emodinamica vascolare, chirurgia aortica, malattie coronariche, aneurismi. Per queste ultime attività, la ricerca è portata avanti con i medici dell'Emory University Hospital, ma anche in collaborazione con l'Ospedale Giovanni XXIII di Bergamo e l'Università di Pavia.

CV Sintetico (15-20 righe), comprendente anche le principali attività didattiche, i dottorandi seguiti (con la loro attuale posizione lavorativa, se nota) e i principali finanziamenti ottenuti:

Veneziani è autore di un libro di testo (e uno attualmente in fase di scrittura), co-editor di due libri di ricerca, autore di 61 lavori su peer-review journal, 10 Capitoli di libri, 21 atti di convegno. È stato insignito del Premio Sacchi Landriani per giovani analisti numerici nell'ambito delle equazioni a derivate parziali nel 2006; un suo lavoro con Alfio Quarteroni e Paolo Zunino è stato insignito del SIAM Outstanding Paper Prize nel 2004. È attualmente PI di due progetti NSF, coPI di un progetto industrial, PI di un progetto finanziato dalla Georgia Research Alliance. In Europa è stato PI del progetto Aneurisk finanziato da Siemens, di alcuni progetti industriali e ha partecipato a diversi progetti ministeriali italiani, oltre che essere stato coordinatore dell'Unità Italiana del Progetto Europeo Haemodol.

La sua esperienza didattica in Italia è principalmente legata all'Analisi Numerica e ai Metodi Numerici per Equazioni a Derivate Parziali e Fluidodinamica Computazionale, di cui ha tenuto diversi corsi al Politecnico di Milano, all'Università di Verona e di Bergamo a livello di Laurea di Primo Livello, Laurea Magistrale e Dottorato. Negli Stati Uniti ha insegnato a livello di Laurea e Dottorato corsi di Equazioni alle Derivate Parziali, Equazioni Differenziali, Algebra Lineare, Analisi Numerica. Ha insegnato anche per corsi rivolti a studenti delle superiori (sia in Italia che in USA), e in corsi estivi e di formazione permanente. È stato advisor di 8 studenti di Dottorato (1 è Assistant Professor, 2 lavorano in industria, 5 lavorano in Laboratori Nazionali in USA, Italia, Germania). Al momento è advisor di 9 studenti di Dottorato.

Pagina web personale: [www.mathcs.emory.edu/~ale](http://www.mathcs.emory.edu/~ale)

Elenco dei lavori principali (massimo 12):.

|                                                                          |      |                                                       |   |      |      |      |
|--------------------------------------------------------------------------|------|-------------------------------------------------------|---|------|------|------|
| Perotto, S.; Veneziani, A.                                               | 2013 | Journal of Scientific Computing                       | 2 | 1    | 32   |      |
|                                                                          |      | Journal of Computational                              | 3 |      |      |      |
| Veneziani, A., Villa, U.                                                 | 2013 | Physics                                               | 8 | 359  | 375  |      |
| Perego, M., Veneziani, A., Vergara, C.                                   | 2011 | SIAM Journal on Scientific Computing                  | 3 | 3    | 1181 | 1211 |
|                                                                          |      |                                                       | 3 |      |      |      |
| Perotto, S., Ern, A., Veneziani, A.                                      | 2010 | Multiscale Modeling and Simulation                    | 8 | 4    | 1102 | 1127 |
| Gerardo-Giorda, L., Mirabella, L., Nobile, F., Perego, M., Veneziani, A. | 2009 | Journal of Computational Physics                      | 2 |      |      |      |
|                                                                          |      |                                                       | 2 |      |      |      |
|                                                                          |      |                                                       | 8 | 10   | 3625 | 3639 |
| Gervasio, P., Saleri, F., Veneziani, A.                                  | 2006 | Journal of Computational Physics                      | 2 |      |      |      |
|                                                                          |      |                                                       | 1 |      |      |      |
|                                                                          |      |                                                       | 4 | 1    | 347  | 365  |
| Salieri, F., Veneziani, A.                                               | 2005 | SIAM Journal on Numerical Analysis                    | 4 |      |      |      |
|                                                                          |      |                                                       | 3 | 1    | 174  | 194  |
| Veneziani, A.                                                            | 2003 | Numerical Methods for Partial Differential Equations  | 1 |      |      |      |
|                                                                          |      |                                                       | 9 | 4    | 487  | 510  |
| Quarteroni, A., Veneziani, A., Zunino, P.                                | 2002 | SIAM Journal on Numerical Analysis                    | 3 |      |      |      |
|                                                                          |      |                                                       | 9 | 5    | 1488 | 1511 |
| Quarteroni, A., Saleri, F., Veneziani, A.                                | 2000 | Computer Methods in Applied Mechanics and Engineering | 1 | 3-   |      |      |
|                                                                          |      |                                                       | 8 | Ja   |      |      |
|                                                                          |      |                                                       | 8 | n    | 505  | 526  |
| Quarteroni, A., Tuveri, M., Veneziani, A.                                | 2000 | Computing and Visualization in Science                | 2 | 4    | 163  | 197  |
| Formaggia, L., Nobile, F., Quarteroni, A., Veneziani, A.                 | 1999 | Computing and Visualization in Science                | 2 | 3-Fe | 75   | 83   |
|                                                                          |      |                                                       | 2 | b    |      |      |

Al. 2.2

## Alessandro Veneziani

Department of Mathematics and Computer Science, Emory University,  
400 Dowman Dr, Atlanta, GA 30322, USA, Phone: +14047277925, Fax: +14047275611,  
ale@mathcs.emory.edu, www.mathcs.emory.edu/~ale  
September 2014

### Education

PhD in Computational and Applied Mathematics, University of Milan, 1998,

*Doctoral Dissertation: Mathematical and Numerical Modeling of Blood Flow Problems*, July 1998, Alfio Quarteroni, advisor.

Laurea (Master of Science) in Electronic Engineering, Politecnico di Milano, 1994

### Positions Held

### Main Appointments

09/2007-present, **Associate Professor**, Department of Mathematics and Computer Science, Emory University, Atlanta, GA, USA

2009-present, **Biomedical Engineering Program Faculty**, Wallace H. Coulter Biomedical Engineering Department, Georgia Tech & Emory University, Atlanta, GA, USA

03/2002-08/2007, **Associate Professor**, MOX, Department of Mathematics, Politecnico di Milano, Italy

11/2000-02/2002, **Assistant Professor**, MOX, Department of Mathematics, Politecnico di Milano, Italy

10/1997-10/2000, **Assistant Professor**, Department of Science and Technology, University of Verona, Italy

### Other Appointments

July 2013: **Visiting Professor** at the HTH Academic Center University of Bergamo (Italy)

2006-2007: **Adjunct Professor**, Department of Mechanical Engineering, University of Bergamo

September 2003, October 2004: **Visiting Professor** at the Bernoulli Institute, Lausanne

November 2000, March 2002, October 2002: **Visiting Professor** EPFL, Lausanne, Switzerland

2000-2004: **Adjunct Professor**, Department of Mechanical Engineering, University of Bergamo

January 1999: **Visiting Researcher** at the Department of Mathematics of EPFL

January 1996: **Visiting researcher** at the Biomedical Applications Group CRS4, Cagliari, Italy.

October 1994- September 1995: **Community Service**, Mario Negri Institute for Pharmacological Research

EE

## RESEARCH

### Research Interests

Numerical Approximation of Partial Differential Equations, Preconditioning Techniques, Computational Fluid Mechanics, Domain Decomposition Methods, Multiscale Modeling, Numerical Modeling of the Cardiovascular System, Data Assimilation, Industrial Applications of Scientific Computing.

### Google Scholar Score

| Citation Indices | All  | Since 2009 |
|------------------|------|------------|
| Citations        | 2801 | 1945       |
| h-index          | 26   | 24         |
| i10-index        | 48   | 45         |

### Grants

- 2014 - 2017 NSF Project, DMS 1419060 "Hierarchical Model Reduction Techniques for Incompressible Fluid Dynamics and Fluid - Structure Interaction Problems", Goal: development of methods for incompressible fluids in network of pipes, based on a competitive hybrid finite elements/spectral discretization of the Navier - Stokes equations. Role of Alessandro Veneziani: PI, (US \$ 248,700)
- 2014 - 2017 NSF Project, DMS - 1412973/DMS - 1413037, "Collaborative Research: Novel data assimilation techniques in mathematical cardiology - development, analysis and validation". Goal: development and validation of methods for estimating cardiovascular conductivities via variational techniques and model reduction approaches. Role of Alessandro Veneziani: PI, (US \$ 150,000)
- 2014 - 2019 Absorb Inc: "BIORESORB" Goal: clinical trials and numerical analysis of bioresorbable stents. Role of Alessandro Veneziani: coPI (PI: H. Samady, MD, Emory University Hospital)
- 2014: PI of the GRA Venture Lab Grant "AngioCloud: Real-time vascular data analysis via cloud computing", (US \$54,369)
- 2011-2012: PI of the Emory URC Project "Numerical modeling of porous media in moving domains" (US \$ 28,575)
- 2010-2011: PI of the Project "Computational and Statistical Analysis of Brain Aneurysm Morphology and Hemodynamics", US \$ 15,000, granted by the Brain Aneurysm Foundation
- 2008: PI of the Emory URC Project "Image based numerical fluid structure interactions simulations in computational hemodynamics" (US \$ 30,000)
- 2005-2008: PI of the Project: "Set up of numerical and statistical tools for the rupture risk evaluation in cerebral aneurysms" (2005-2008) supported by Politecnico Foundation and SIEMENS Medical Solutions Italy (Euros 235,000 )
- 2007: Former Coordinator of the Mathematical Unit of the Project HOT-FDI (Hollow and Transparent Fiber Design for Industries), Italian Research Ministry 2007-2009 (Euros 200,000) - *position left when moved to Emory*
- 2007: PI of the Project: "Fluid-structure interaction problems in motorcycle brakes" with Brembo Brakes (Euros 15,000)
- 2005: PI of the Project "Numerical simulations for the optimization of washing machines pumps" October 2004-January 2005 and April-May 2006 with Arylux PMP Elettropompe (Euros 5,000)
- 2002-2006: Coordinator of the Italian Unit of the EU Project "Haemodel" (Director: A: Quarteroni)
- 2002-2003: Co-PI in the Project: "Numerical Modeling of Glow Plugs for Diesel Engines" with Federal Mogul (Euros 28,000)
- 2004: Coordinator of the Project "Numerical Assessment of Performance of Competition Swimsuits" with Arena (Euros 20,000)



### *Participation to other projects*

iCardioCloud, PI: F. Auricchio, Univ. of Pavia, Italy (2014-2017), Awarded by Fondazione Cariplo, Italy, Role: Consultant

PASCA2L: Patient Specific Computational Analysis of Aortic hemodynamics over Large data sets, PI: F. Auricchio, Univ. of Pavia, Italy (2013-2014). Role: Co-PI Award: Access to computational CINECA clusters

Fast Solvers for Three-Dimensional Unstructured Finite Element Models of Incompressible Flows (2012-2013) Role: PI, Award: Access to NSF XSEDE Clusters

"Design of drug delivery stents" from the Cariplo Foundation, 2005-2007

"Computational Cardiology" from the Italian Institute for High Mathematics (INdAM) 2006-2007

"Complex Systems in Biomedicine" from the Italian Institute for High Mathematics (INdAM) 2005

COFIN2005 from the Italian Ministry of Scientific Research

COFIN2004 from the Italian Ministry of Scientific Research

COFIN2003 from the Italian Ministry of Scientific Research

COFIN2001 from the Italian Ministry of Scientific Research

COFIN2000 from the Italian Ministry of Scientific Research

Agenzia2000 from the National Research Council (CNR), Italy

Large Scale Computing- Multiscale Models in Biology, from the Politecnico di Milano (2000-2001)

### **Honors**

National Qualification to Full Professorship in Italy (Dec 2013)

International "Giovanni Sacchi-Landriani Prize" from the Academy of Arts and Letters of Lombardy Institute in Milan for numerical analysts of Partial Differential Equations younger than 40 years old

Recipient with A. Quarteroni and P. Zunino of the 2004 SIAM Outstanding Paper Prize for paper [30] (see publication list below).

Best poster presented at the 2008 Emerson Center Lectureship Award Symposium (with E. Agostoni and M. Perego)



## Research Papers (Peer Reviewed)

(Total number of papers: 61, 37 of them published after joining Emory)

1. G. H. W. van Bogerijen, F. Auricchio, M. Conti, A. Lefieux, A. Reali, A. Veneziani, J.L. Tolenaar, F.L. Moll, V. Rampoldi, S. Trimarchi, *Aortic Hemodynamics After Thoracic Endovascular Aortic Repair With the Role of Bird-Beak*, J Endov Therapy, in press (2014)
2. L. Bertagna and A. Veneziani *A model reduction approach for the variational estimation of vascular compliance by solving an inverse fluid-structure interaction problem*, Inverse Problems, **30**, doi:10.1088/0266-5611/30/5/055006 (2014), 23pp.
3. F. Auricchio, M. Conti, A. Lefieux, S. Morganti, A. Reali, F. Sardanelli, F. Secchi, S. Trimarchi, A. Veneziani, *Patient-specific analysis of post-operative aortic hemodynamics: a focus on Thoracic Endovascular Repair (TEVAR)* Comput Mech DOI 10.1007/s00466-014-0976-6 (2014)
4. A. Aposporidis, P. Vassilevski, A. Veneziani, Multigrid preconditioning of the non-regularized augmented Bingham fluid problem, ETNA (Electronic Transaction Numerical Analysis), **41**, pp. 42-61 (2014)
5. S. Perotto, A. Veneziani . *Coupled model and grid adaptivity in hierarchical reduction of elliptic problems*, J Sci Comp (2014) **60**:505-536
6. Ian C. Campbell, Lucas H. Timmins, Don P. Giddens, Renu Virmani, Alessandro Veneziani, Syed T. Rab, Habib Samady, Michael C. McDaniel, Alope V. Finn, W. Robert Taylor, John N. Oshinski, *Computational Fluid Dynamics Simulations of Hemodynamics in Plaque Erosion*, Cardio. Eng. Techn. vol 4 (4), 464-473 (2013)
7. Gogas, B., Timmins, L., Passerini, T., Piccinelli M, Kim, S., Molony, D., Giddens D., King, S., Samady, H., *Biomechanical Assessment of Bioresorbable Devices*, JACC: Cardiovascular Interventions , **6**(7):760-761 (2013)
8. Passerini, Tiziano, Annalisa Quaini, Umberto Villa, Alessandro Veneziani, and Suncica Canic. "Validation of an open source framework for the simulation of blood flow in rigid and deformable vessels." International journal for numerical methods in biomedical engineering **29**, no. 11 (2013): 1192-1213.
9. Ian C. Campbell, Daiana Weiss, Jonathan D. Suever, Renu Virmani, Alessandro Veneziani, Raymond P. Vito, John N. Oshinski, and W. Robert Taylor, *Biomechanical modeling and morphology analysis indicates plaque rupture due to mechanical failure unlikely in atherosclerosis-prone mice*, Am J Physiol Heart Circ Physiol February 1, 2013 **304**:H473-H486;
10. J.P. Keller, L. Gerardo Giorda, A. Veneziani, *Numerical simulation of a susceptible-exposed-infectious space-continuous model for the spread of rabies in raccoons across a realistic landscape*, J Biol Dynamics, **7**, no. sup1, 31-46. (2013)  
DOI: 10.1080/17513758.2012.742578
11. A. Veneziani, U. Villa, *ALADINS: an ALgebraic splitting time ADaptive solver for the Incompressible Navier-Stokes equations.*, J Comp Phys, **238**, 359-375 (2013)
12. M. D'Elia, A. Veneziani, Uncertainty quantification for data assimilation in a steady Incompressible Navier-Stokes problem ESAIM: Mathematical Modelling and Numerical Analysis **47**, no. 04 (2013): 1037-1057.
13. Lucia Mirabella, Christopher M. Haggerty, Tiziano Passerini, Marina Piccinelli, Pedro J. Del Nido, Alessandro Veneziani, Ajit P. Yoganathan "Treatment planning for a TCPC test case: a numerical investigation under rigid and moving wall assumptions", Int J Num Meth Biomed Eng **29**(2), 197-216 (2013)
14. Marina Piccinelli, Yiemeng Hoi, Frank Tong, David Steinman, Alessandro Veneziani, Luca Antiga, *Automatic neck plane detection and 3D geometric characterization of aneurysmal sacs* Annals of Biomedical Engineering, Volume **40**, Issue 10 , pp 2188-2211 (2012)
15. M. D'Elia, M. Perego, A. Veneziani, *A Variational Data Assimilation Procedure for the Incompressible Navier-Stokes Equations in Hemodynamics*, J Sci Comp, Volume **52**, Number 2 (2012), 340-359

16. Tiziano Passerini, Laura M. Sangalli, Simone Vantini, Marina Piccinelli, Susanna Bacigaluppi, Luca Antiga, Edoardo Boccardi, Piercesare Secchi, Alessandro Veneziani, *An Integrated Statistical Investigation of the Internal Carotid Arteries hosting Cerebral Aneurysms*, Cardiovascular Engineering and Technology **3**(1), 26-40, 2012
17. A. Aposporidis, M. Olshanskii, E. Haber, A. Veneziani *An augmented formulation of the incompressible Bingham fluid problem: Analysis and numerical solution*, Comp. Meth. Appl. Mech. Eng., **200**:2434-2446, 2011
18. M. Perego, A. Veneziani, C. Vergara, *A Variational Approach for Estimating the Compliance of the Cardiovascular Tissue: An Inverse Fluid-Structure Interaction Problem*, SIAM J. Sc. Comp , **33**(3), pp. 1181-1211, 2011
19. M. Piccinelli, S. Bacigaluppi, E. Boccardi, B. Ene-Iordache, A. Remuzzi, A. Veneziani, L. Antiga, *Influence of internal carotid artery geometry on aneurysm location and orientation: a computational geometry study*, Neurosurgery, **68**(5):1270-1285, 2011.
20. L. Gerardo-Giorda, M. Perego, A. Veneziani, *Optimized Schwartz coupling of bidomain and monodomain models in electrocardiology*, M2AN, Vol. **45** (2), 2011.
21. F. Viscardi, C. Vergara, L. Antiga, S. Merelli, A. Veneziani, G. Puppini, G. Faggian, A. Mazzucco, G. B. Luciani, *Comparative finite-element model analysis of ascending aortic flow in bicuspid and tricuspid aortic valve*, Artificial Organs., **34**(12), pp. 1114-1120, 2010
22. L. Mirabella, F. Nobile, A. Veneziani, *An a posteriori error estimator for model adaptivity in electrocardiology*, Comp. Methods Appl. Mech. Engrg, vol. **200**, pp. 2727-2737, 2011
23. S. Perotto, A. Ern, A. Veneziani, *Hierarchical Local Model Reduction for Elliptic Problems I: A Domain Decomposition Approach*, SIAM MMS **8**(4), pp.1102-1127 (2010)
24. R. Ponzini, C. Vergara, G. Rizzo, A. Veneziani, A. Redaelli, A. Roghi, A. Vanzulli, O. Parodi, *Computational Fluid Dynamics based estimation of blood flow rate in Doppler analysis: In vivo validation by means of Phase Contrast Magnetic Resonance Imaging*, IEEE Trans Biomed Eng, **57**(7), pp. 1807-1815 (2010)
25. C. Vergara, R. Ponzini, A. Veneziani, A. Redaelli, D. Neglia, O. Parodi, *Womersley number-based estimation of flow rate with Doppler Ultrasound: Sensitivity analysis and first clinical application*, Computer Methods and Programs in Biomedicine, **98**(2), pp. 151-160 (2010)
26. V. Bacchelli, A. Veneziani, S. Vessella, *Corrosion Detection in a 2D domain with a polygonal boundary*, Journal of Inverse and Ill-posed Problems, **8**(3), pp. 281-305 (2010)
27. L. Formaggia, A. Veneziani, C. Vergara, *Numerical solution of flow rate boundary problems for an incompressible fluid in deformable domains*, Comp Meth Appl Mech Engr, **199**(9-12), pp. 677-688 (2010)
28. M. Perego, A. Veneziani, *An Efficient Generalization of the Rush-Larsen Method for Solving Electro-Physiology Membrane Equations*, ETNA (Electronic Transaction in Numerical Analysis), **35**, pp. 234-256 (2009)
29. M. Piccinelli, A. Veneziani, D. A. Steinman, A. Remuzzi, L. Antiga, *A framework for geometric analysis of vascular structures: Applications to cerebral aneurysms*, **28**(8), IEEE Trans Biomed Imag, pp. 1141 - 1155 (2009)
30. T. Passerini, M. de Luca, L. Formaggia, A. Quarteroni, A. Veneziani, *A 3D/1D geometrical multiscale model of cerebral vasculature*, J Eng Math, **64**(4), pp. 319-330 (2009)
31. L. Gerardo-Giorda, L. Mirabella, F. Nobile, M. Perego, A. Veneziani, *A model preconditioner for the Bidomain problem in electrocardiology*, J. Comput. Phys., Vol. **228**, pp. 3625- 3639 (2009)
32. A. Veneziani, *A Note on the Consistency and Stability Properties of Yosida Fractional Step Schemes for the Unsteady Stokes Equations*, SIAM J. Numer. Anal., **47**(4), pp. 2838-2843 (2009)
33. L. Formaggia, A. Veneziani, C. Vergara, *A new approach to numerical solution of defective boundary value problems in incompressible fluid dynamics*, SIAM J. Numer. Anal, **46**(6), pp. 2769-2794, 2008

34. L. M. Sangalli, P. Secchi, S. Vantini, A. Veneziani, *A Case Study in Explorative Functional Data Analysis: Geometrical Features of the Internal Carotid Artery*, Journal of the American Statistical Association, **104**(485), pp. 37-48 (2009)
35. L. M. Sangalli, P. Secchi, S. Vantini, A. Veneziani, *Efficient estimation of 3-dimensional centerlines of inner carotid arteries and their curvature functions by free knot regression splines*, Journal of the Royal Statistical Society Ser. C, Applied Statistics, **58**(3), pp. 285-306 (2009)
36. R. Balossino, G. Pennati, F. Migliavacca, L. Formaggia, A. Veneziani, M. Tuveri, G. Dubini, *Computational models to predict stenosis growth in carotid arteries: which is the role of boundary conditions?*, Comput Methods Biomech Biomed Engin., **12**(1), pp.113-23 (2009)
37. D. A. Di Pietro, A. Veneziani, *Expression Templates Implementation of the Continuous and Discontinuous Galerkin Methods*, Comp. Vis. Science, **12**, pp. 421-436 (2009)
38. A. Veneziani, C. Vergara, *An approximate method for solving incompressible Navier-Stokes problem with flow rate conditions*, Comp Meth Appl Mech Engr, **196**(9-12), pp. 1685-1700 (2007)
39. L. Formaggia, S. Micheletti, R. Sacco, A. Veneziani, *Mathematical modelling and numerical simulation of a glow-plug*, Appl Num Math, Volume 57, Issue 10 (October 2007) Pages: 1125-1144
40. R. Ponzini, C. Vergara, A. Redaelli, A. Veneziani, *Reliable CFD-based estimation of flow rate in haemodynamics measures*, Ultrasound in Medicine & Biology, **32**(10), pp. 1545-1555 (2006)
41. L. Formaggia, D. Lamponi, M. Tuveri, A. Veneziani, *Numerical Modeling of 1D Arterial Networks coupled with a Lumped Parameters Description of the Heart*, Computer Meth Biomech Biomed Eng, **9**(5), pp. 273 - 288 (2006)
42. P. Gervasio, F. Saleri, A. Veneziani, *Algebraic splitting methods for the incompressible Navier-Stokes Equations*, Journal Comp Phys **214**(1), 347-365 (2006)
43. A. Veneziani, C. Vergara, *Flow rate defective boundary conditions in haemodynamics simulations*, Int J Num Methods in Fluids, **42**, pp.803-816 (2005)
44. F. Saleri, A. Veneziani, *Pressure Correction Algebraic-Splitting Methods for the Incompressible Navier-Stokes Equations*, SIAM J Numer Analysis, **43**(1), pp. 174-194 (2005)
45. A. Gauthier, F. Saleri, A. Veneziani, *A fast preconditioner for the incompressible Navier Stokes Equations*, Comput Visual Sci, **6**, pp.105-112 (2004)
46. A. Quarteroni, A. Veneziani, *Analysis of a Geometrical Multiscale Model based on the Coupling between PDE's and ODE's for Blood Flow simulations*, SIAM MMS **1**(2) pp. 173-195 (2003)
47. A. Veneziani, *Block Factorized Preconditioners for High-order Accurate in Time Approximation of the Navier-Stokes Equations*, Numer Methods Partial Differential Eq, **19**, pp.487-510 (2003)
48. A. Quarteroni, A. Veneziani, P. Zunino, *A Domain Decomposition Method for Advection Diffusion Processes with Application to Blood Solutes*, SIAM J Sci Comp, **23**(6), pp. 1959-1980 (2002)
49. K. Laganà, G. Dubini, F. Migliavacca, R. Pietrabissa, A. Quarteroni, S. Ragni, A. Veneziani, *Multiscale Modeling as a tool to prescribe realistic boundary conditions for the study of surgical procedures*, Biorheology, **39** pp. 359-364, (2002)
50. A. Quarteroni, S. Ragni, A. Veneziani, *Coupled between lumped and distributed models for blood flow problems*, Comp Vis Science, **4**(2), pp.111-124 (2001)
51. A. Quarteroni, A. Veneziani, P. Zunino, *Mathematical and Numerical Modelling of Solutes Dynamics in Blood Flow and Arterial Walls*, SIAM J Numer Analysis, **39**(5), pp.1488-1511 (2001)
52. A. Quarteroni, F. Saleri, A. Veneziani, *Factorization Methods for the Time advancing of the incompressible Navier-Stokes equations*, Comp. Meth. Appl. Mech. Eng., **188**, pp. 505-526 (2000)

53. A. Quarteroni, M. Tuveri, A. Veneziani, *Computational Vascular Fluid Dynamics: Problems, Models and Methods*, Comp. Vis. Science, **2**, pp. 163-197 (2000)
54. L. Formaggia, F. Nobile, A. Quarteroni, A. Veneziani, *Multiscale modelling of the vascular system: a preliminary analysis*, Comp. Vis. Science, **2**, pp. 75-83 (1999)
55. A. Quarteroni, F. Saleri, A. Veneziani, *Analysis of the Yosida method for the incompressible Navier-Stokes equations*, Jou. Math. Pures Appl., **78**, pp. 473-503 (1999)
56. G. Abdoulaev, S. Cadeddu, G. Delussu, M. Donizelli, C. Manzi, L. Formaggia, A. Giachetti, E. Gobetti, A. Leone, P. Pili, A. Schenine, M. Tuveri, A. Varone, A. Veneziani, G. Zanetti, A. Zorcolo, *ViVA: The Virtual Vascular Project*, IEEE Transactions on Information Technology in Medicine, **4**(2), pp. 268-274 (1998)
57. L. Gotusso, A. Veneziani, *Discrete and continuous models of the vibrating rod*, Math. Comp. Modelling, **24**, pp.99-115 (1996)
58. A. Iannelli, G. Prouse, A. Veneziani, *Analysis of a Nonlinear Model of the Vibrating String*, NODEA (Nonlinear Differential Equations and Applications), **3**, pp.149-177 (1996)
59. L. Gotusso, A. Veneziani, *Discrete and continuous models of the vibrating string*, "Dynamical Systems and Applications", World Scientific Series in Applicable Analysis, **4** (1995), pp.295-314
60. A. Iannelli, G. Prouse, A. Veneziani, *On a nonlinear model of the vibrating string*, Rend. Acc. Naz. dei Lincei, Serie IX, Volume V, Fascicolo 3, pp.223-228, (1994)
61. L. Gotusso, G. Prouse, A. Veneziani, *On two nonlinear models of the vibrating string*, Rend. Acc. Naz. dei XL, Memorie di Matematica, **112**, Vol. XVIII, pp. 201-225 (1994)

## Book (editor)

- L. Formaggia, A. Quarteroni, A. Veneziani (eds) *Complex Systems in Biomedicine*, Springer Italia (2006)
- L. Formaggia, A. Quarteroni, A. Veneziani (eds.), *Cardiovascular Mathematics*, Springer (2009)

## Chapters in Books

1. Luca Bertagna, Marta D'Elia, Mauro Perego, Alessandro Veneziani. *Data Assimilation in Cardiovascular Fluid-Structure Interaction Problems: an introduction*, Tech Report TR-2013-012, Emory, MATH& CS, to appear in Bodnar, Tomas, Galdi, Giovanni P., Necasova, AÅrka (Eds.) *Fluid-Structure Interaction and Biomedical Applications*, Birkhäuser, Expected date: 9/14/1014, ISBN 978-3-0348-0821-7
2. A. Quarteroni, A. Veneziani, *Modeling and Simulation of Blood Flow Problems*, "Computational Science for 21st Century", (J.L. Lions et al. eds.), J. Wiley and Sons, pp. 339-350.
3. A. Quarteroni, F. Saleri, A. Veneziani, *Approximation of Navier-Stokes Equations via Factorization Methods*, in "Navier-Stokes Equations: Theory and Numerical Analysis", (J. Heywood et al. eds.), Pitman Research Notes in Mathematics n.388, pp.322-334 (1998)
4. Co-author of Chapter 11 of the Book (in Italian): A. Quarteroni, *Numerical Modeling of Differential Problems*, 3rd ed., Springer Italia, Milano (2006), entitled "*Introduction to Finite Element Programming*" (as stated by the author in the Foreword of the book).
5. L. Formaggia, A. Quarteroni, A. Veneziani: *The circulatory system: from case studies to mathematical modelling*, in L. Formaggia, A. Quarteroni, A. Veneziani (eds) *Complex Systems in Biomedicine*, Springer Italia (2006)
6. L. Formaggia, A. Veneziani, *Geometrical Multiscale Models for the Cardiovascular System*, in *Blood Flow Modelling and Diagnostics*, ABIOMED Warsaw 2005



7. L. Formaggia, A. Veneziani, *Geometrical Multiscale Models for the Cardiovascular System*, in Modeling of the Cardiovascular System, C. Lazzari (ed.), Rome (2007)
8. J. Peirò, A. Veneziani, *Reduced Models for the Cardiovascular System*, in L. Formaggia, A. Quarteroni, A. Veneziani (eds.), Cardiovascular Mathematics, Springer (2009), pp. 347-394
9. L. Formaggia, A. Quarteroni, A. Veneziani, *Multiscale models for the Cardiovascular System*, in L. Formaggia, A. Quarteroni, A. Veneziani (eds.), Cardiovascular Mathematics, Springer (2009), pp. 395-446
10. M. D'Elia, L. Mirabella, T. Passerini, M. Piccinelli, C. Vergara, A. Veneziani, Some applications of Variational Data Assimilation in Computational Hemodynamics, in D. Ambrosi, A. Quarteroni, G. Rozza (eds.), Modelling of Physiological Flows, Springer (2011), pp. 363-394.

## Proceedings

1. M. Aletti, A. Bortolossi, S. Perotto, A. Veneziani, *One-dimensional surrogate models for advection-diffusion problems*, to appear in Proceedings of Enumath 2013
2. L. Gerardo Giorda, L. Mirabella, M. Perego, A. Veneziani *Optimized Schwarz Methods and Model Adaptivity in Electrophysiology Simulations*, Proceeding of Domain Decomposition Conference 21 (2013)
3. Lorenzo Mauri, Simona Perotto, Alessandro Veneziani, *Adaptive geometrical multiscale modeling for hydrodynamic problems*, Numerical Mathematics and Advanced Applications 2011: Proceedings of ENUMATH 2011 edited by Andrea Cangiani, Ruslan L Davidchack, Emmanuil Georgoulis, Alexander N. Gorban, Jeremy Levesley, Michael V. Tretyakov, Springer, London (2013)
4. Jaroslaw Slawinski, Tiziano Passerini, Umberto Villa, Alessandro Veneziani, Vaidy Sunderam, *Experiences with Target-Platform Heterogeneity in Clouds, Grids, and On-Premises Resources*, Proceedings of HCW 2012 21st International Heterogeneity in Computing Workshop
5. M. D'Elia, A. Veneziani, *Methods for assimilating blood velocity measures in hemodynamics simulations: preliminary results*, Proceedings of ICCS 2010, Data Driven Simulations, (2010)
6. A. F. Corno, C. Vergara, C. Subramanian, R. A. Johnson, T. Passerini, A. Veneziani, L. Formaggia, N. Alphonso, A. Quarteroni, J. C. Jarvis, *Assisted Fontan procedure: animal and in vitro models and computational fluid dynamics study*, Interactive CardioVascular and Thoracic Surgery, 10, pp. 679-684, 2010
7. R. Ponzini, G. Rizzo, C. Vergara, A. Veneziani, U. Morbiducci, F.M. Montevecchi, A. Redaelli, Computational modeling of local hemodynamics phenomena: Methods, tools and clinical applications, Nuovo Cimento C della Societa' Italiana di Fisica - Colloquia on Physics, 32(2), pp. 77-80, 2009
8. R. Ponzini, C. Vergara, A. Veneziani, A. Redaelli, *Design of new reliable CFD-based estimation of flow rate: Early in-vivo results*, Computers in Cardiology, pp. 953-955, 2008.
9. A. Ern, S. Perotto, A. Veneziani, *Hierarchical Model Reduction for Advection-Diffusion-Reaction Problems*, in Numerical Mathematics and Advanced Applications Proceedings of ENUMATH 2007, the 7th European Conference on Numerical Mathematics and Advanced Applications, Graz, Austria, K. Kunisch, G. Of and O. Steinbach (eds.), 2007
10. A. Veneziani, C. Vergara, *Flow Rate Boundary Conditions in Fluid-Dynamics*, PAMM Proceedings in Applied Mathematics and Mechanics, 6, pp. 35-38, 2006 (Proceedings of the GAMM meeting 2006, Berlin)
11. Balossino R., Migliavacca F., Pennati G., Dubini G., Vergara C., Formaggia L., Veneziani A., *Multiscale, Models of the Cardiovascular System Applied to the Study of the Flow in a Carotid Bifurcation*, in Technological innovation and evaluation of medical devices for the cardiovascular system, Rapporti Istituzionali, 05/46, 2004.
12. L. Formaggia, F. Nobile, A. Quarteroni, A. Veneziani, P. Zunino, *Advances in numerical simulation of blood flow problems*, Proceedings of ECCOMAS2000, E. Onate et al (eds.) (CDRom paper - 14 pages), 2000

13. R. Pietrabissa, A. Quarteroni, G. Dubini, A. Veneziani, F. Migliavacca, S. Ragni, *From the global hemodynamics down to the local blood flow: preliminary applications of a multiscale approach*, Proceedings of ECCOMAS2000 E. Onate et al (eds.) (CDRom Paper - 17 pages), 2000
14. A. Quarteroni, A. Veneziani and P. Zunino, *Numerical investigation of transport and absorption phenomena of blood solutes*, in 18th UIT National Heat Transfer Conference, A. Niro et al., Eds., ETIS, Pisa, 2000, pp. 955-966
15. F. Nobile, A. Veneziani, *Fluid-Structure interaction in Blood Flow Problems*, Z. Angew. Math. Mech. 79, S255-S258 (1999)
16. A. Veneziani, *Boundary Conditions for Blood Flow Problems*, in Proceeding of ENUMATH97, R. Rannacher et al (eds.), pp. 596-605, 1998
17. A. Quarteroni, A. Veneziani, *Modellistica matematico-numerica del flusso del sangue nelle grandi arterie*, Atti dei Convegni Lincei n. 137, pp. 129-150, 1996
18. A. Quarteroni, A. Veneziani, *Vascular Fluid Dynamics: Modelling and Methods*, Rend. Ist. Lomb. Lettere, Scienze e Arti, pp. 219-271 (1998)
19. L. Gotusso, G. Prouse, A. Veneziani, *Linear and nonlinear models for the vibrating rod*, in Advances in Difference Equations, Proceedings of "Second International Conference on Difference Equations and Applications", S. Elaydi et al. (eds.), Gordon and Breach, (1997), pp. 245-252
20. L. Gotusso, G. Prouse, A. Veneziani, *Nonlinear models for the vibrating rod*, Proceedings of "VI Colloquium on Differential Equations", D. Bainov et al. (eds.) , SCT Publishing, (1995), pp. 135-143
21. L. Gotusso, G. Prouse, A. Veneziani, *On nonlinear models for the vibrating string*, Proceedings of "V Colloquium on Differential Equations", D. Bainov et al. (eds.), SCT Publishing, (1994), pp. 91-100

### Technical Reports:

1. Huanhuan Yang, Alessandro Veneziani *Variational Estimation of Cardiac Conductivities by a Data Assimilation Procedure*, Tech Report Math & CS Department, Emory, TR-2013-007 (2013)
2. Tiziano Passerini, Jaroslaw Slawinski, Umberto Villa, Alessandro Veneziani, Vaidy Sunderam, *Experiences with a computational fluid dynamics code on clouds, grids, and on-premise resources*, Tech Report Math & CS Department, TR 2012-016
3. A. Veneziani, U. Villa, *ALADINS: an ALgebraic splitting time ADaptive solver for the Incompressible Navier-Stokes equations. Part 2: Implementation and 3D numerical results*, Tech Report Math & CS Department, TR 2011-011
4. M. Piccinelli, L. Mirabella, T. Passerini, E. Haber, *4D Image-Based CFD Simulation of a Compliant Blood Vessel*, Tech Report Math & CS Department, TR 2010-027
5. M. D'Elia, A. Veneziani *A data assimilation technique for including noisy measurements of the velocity field into Navier-Stokes simulations*, Tech Report Math & CS Department, TR 2010-008
6. E. Agostoni, M. Perego, S. Salsa, A. Veneziani, *Mathematical and Numerical Modeling of Focal Cerebral Ischemia*, Tech Report Math & CS Department, TR 2009-009
7. A. Veneziani, *Numerical analysis of two nonlinear models of the vibrating strings*, Tech. Rep. Department of Mathematics, Politecnico di Milano n. 156, October 1994

### Other Published Work:

- S. Bacigaluppi , M. Piccinelli , L. Antiga , A. Veneziani , T. Passerini , P. Rampini , M. Zavanone , P. Severi , G. Tredici , G. Zona , T. Krings , E. Boccardi , S. Penco, M. Fontanella, *Factors affecting formation and rupture of intracranial saccular aneurysms*, Neurosurgical Review, 37(1), 2014 (images of the paper used for the cover)



Dubini, G; Ambrosi, D; Bagnoli, P; Boschetti, F; Caiani, EG; Chiastra, C; Conti, CA; Corsini, C; Costantino, ML; D'Angelo, C; Formaggia, L; Fumero, R; Gastaldi, D; Migliavacca, F; Morlacchi, S; Nobile, F; Pennati, G; Petrini, L; Quarteroni, A; Redaelli, A; Stevanella, M; Veneziani, A; Vergara, C; Votta, E; Wu, W; Zunino, P, *Trends in biomedical engineering: focus on Patient Specific Modeling and Life Support Systems*, J Appl Biomater Biomech 9, 1090 (2011)

A. Veneziani's Lab, *Even Mathematics has a... Heart* (in Italian) SIMAI, 2011

<http://maddmaths.simai.eu/schede-divulgative/anche-la-matematica-ha-cuore/>

A. Quarteroni, F. Saleri, A. Veneziani, *La modellistica va a scuola (Mathematical models in high schools teaching)*, Atti XXIV Convegno Nazionale sull'Insegnamento della Matematica (Proceedings of the 24th National Workshop on Math Teaching), 2006

A. Veneziani, *Geometrical multiscale modeling of the cardiovascular system: problems and perspectives*, ERCOFTAC Bulletin 2006 Bio-fluid Mechanics and Heat Transfer (2006):

[www.wtb.tue.nl/woc/wet/ercoftac/sig.bio/bulletin2006.htm](http://www.wtb.tue.nl/woc/wet/ercoftac/sig.bio/bulletin2006.htm)

L. Formaggia, A. Veneziani, *Reduced and Multiscale Models for the Circulatory System*, Von Karman Institute Lecture Notes, May 2003

### Invited Research Presentations:

(44 presentations out of 59 given after joining Emory)

1. BCAM, Bilbao (Spain), July 4th 2014 (invited talk)
2. National Group of Biomedical Engineering, Pavia (Italy), June 27th 2014 (plenary)
3. The 8th Southeast Meeting on Soft Materials, Emory University, Atlanta (GA), May 14th 2014 (plenary)
4. Georgia Scientific Computing, Kennesaw State University, GA Feb 22nd 2014 (Plenary)
5. MBI CTW Workshop Molecular to Systems Physiology, Columbus OH, 5-9 May 2014, invited talk
6. ICERM Workshop, "From the Clinic to Partial Differential Equations and back", Providence, RI, Jan 19-24 2014 (Plenary + Tutorial)
7. 3rd Int Conference on Computational & Mathematical Biomedical Engineering, City University of Hong-Kong, Tat Chee Avenue, Kowloon, Hong Kong SAR, (Keynote Speaker) Dec 16-18 2013
8. MBI Workshop: Mathematics Guiding Bioartificial Heart Valve Design, Columbus OH, 28-31 October 2013, invited talk
9. Advances in Computational Mechanics, San Diego CA, Feb 25-28 2013 (invited Minisymposium)
10. Conference Modeling and Simulation of Physiological Systems, Lisbon (PT), Dec 5-9 2012 (plenary)
11. MBI Workshop Statistics of Time Warpings and Phase Variations Workshop, two invited talks, Columbus OH, 13-16 November 2012, (invited talk)
12. 2nd Workshop on Scientific Computing in Health Applications: Sao Paulo, Brazil (Aug 6-8 2012), (Plenary)
13. 2012 SIAM Conference on Imaging Science Philadelphia, PA, May 21-23 2012, (Minisymposium)
14. Case Western Reserve University, Cleveland, OH 4/13/2012, (invited talk)
15. Career Day for Mathematical Engineering, Politecnico di Milano, Italy, October 19th 2011 (Plenary)
16. Data Assimilation in Computational Hemodynamics, University of Houston (9/28/2011) (Invited talk)
17. MITACS-Fields Conference on Mathematics of Medical Imaging, Vancouver (CA), 2-7 October 2011, invited talk



18. *Partial Differential Equations in Mathematical Physics and their Numerical Approximation*, Levico Terme (Italy), September 4th-9th 2011, Plenary
19. *MITACS-Fields Conference on Mathematics of Medical Imaging*, Toronto (CA), 20-24 June 2011, Minisymposium
20. *Mathematical Fluid Mechanics and Biomedical Applications*, Azores (Portougal), June 2011, invited talk
21. *First Workshop on Approximation Theory and Harmonic Analysis (ATHA)*, Kennesaw State University GA (USA), May 14th-15th 2011, Plenary
22. *Department of Mechanical Engineering, University of Pittsburgh*, Pittsburgh PA (USA), Dec 9th 2010, invited talk
23. *Department of Mathematical Sciences, Clemson University*, Clemson SC (USA), Nov 12th 2010, invited talk
24. *Department of Scientific Computing, Florida State University*, Tallahassee FL (USA), Oct 27th 2010, invited talk
25. *Department of Applied Mathematics, Brown University*, Providence RI (USA), Oct 11th 2010, invited talk
26. *IBM Watson Lab*, Ossining, NY (USA), Sep 29 2010, invited talk
27. *VI World Congress of Biomechanics*, Singapore, 1-8 August 2010, Minisymposium
28. *First Workshop on Scientific Computing in Health Applications*, Petropolis, Brazil, 28-30 June 2010, Plenary
29. *Mathematical Fluid Mechanics and Applications*, Evora, Portugal, 18 June 2010, Plenary
30. *Eccomas Conference in Computational Mechanics*, Lisbon, Portugal, 13-17 June 2010, Minisymposium
31. *Fourth Meeting on Modeling of Physiological Flows*, Chia Laguna, Italy, 2-5 June 2010, Plenary
32. *Emory Hospital*, Emory University, Dec 4 2009, invited talk
33. *Department of Mathematics*, University of Alabama, AL, Nov 13 2009, invited talk
34. *Computational Challenges in Integrative Biological Modeling*, MBI Ohio State, Colmbus, October 5-8 2009, invited talk
35. *Georgia Scientific Computing*, Emory University, GA, Feb 21 2009, invited talk
36. *Computational Life Sciences*, Emory University, GA, Jan 30 2009, invited talk
37. *Department of Mathematics*, University of Colorado Springs, CO, Dec 12 2008
38. *Department of Mathematics*, University of Houston, TX, Nov 13 2008, invited talk
39. *BergamoScienza*, Bergamo, Italy, Oct 10 2008, Plenary
40. *Workshop: Optimal Transport in the Human Body, Lungs and Blood*, IPAM, UCLA, Los Angeles (CA), May 19-23 2008, Plenary
41. *Emory Children Care*, Atlanta, GA, USA, March 21 2008, invited talk
42. *Emory Math & CS Graduate Students Seminar*, Atlanta, GA, USA, March 18 2008, invited talk
43. *Emory Hospital*, Atlanta, GA, USA, November 30 2007, invited talk
44. *Department of Mathematics, GA Tech*, Atlanta, GA, USA, November 19 2007, invited talk
45. *University of Padua*, March 23rd 2007 (two invited talks in the same day)
46. *Department of Mechanical Engineering, University of Pittsburgh*, March 1st 2007, invited talk
47. *Workshop INDAM Multiscale 2006*, Cortona September 18-22 2006, Plenary

48. *Workshop on Blood Flow Simulations*, Heidelberg, May 13rd 2004, invited talk
49. *VIII International Conference on Computational Fluid Dynamics*, Oxford UK, March 29th- April 1st 2004, Plenary
50. *University of Trento*, December 3rd 2003, invited talk
51. *University of Catania*, November 13rd 2003, invited talk
52. *Workshop on Fluid-Structure Interaction Methods in Biomedical and Astrophysical Applications*, Catania, November 12nd 2003, invited talk
53. *Contemporary Challenges in Fluid Dynamics*, Capo Miseno (NA), 28 May - 4 June 2001, Plenary
54. *Neuroscience Department, University of Milano*, October 13th 2000, invited talk
55. *Istituto per le Applicazioni del Calcolo "M. Picone"*, Roma, March 31st 1999, invited talk
56. *University of Bari*, Bari, November 26-27th 1998 (two invited talks)
57. *Centre for Advanced Research in Sardinia*, Cagliari, July 2nd 1998, invited talk
58. *Centre for Computational Engineering Research, Politecnico di Milano*, May 8th 1996, invited talk

#### Other Presentations:

- Numerous contributed talks and posters at various meetings (recently: American Mathematical Society Central Meeting, Lubbock, TX, April 2014, SIMAI Grup Meeting, Taormina, Italy, July 7-11 2014).
- Round Table at the Career Day in Mathematics, Kennesaw State University (GA), November 12th 2011
- "Excursion in Math", an event organized by the AWM, Emory, November 14th 2009
- "A tu per tu con...", Emory University (Department of Italian), March 2009
- Talks in some Italian high schools concerning the beauty of mathematics and the most challenging applications in medicine, sport, environmental sciences (last one: November 25 2013)
- Conference at the 24th Workshop UMI-CIIM, Aci-Reale (CT), Italy on *Teaching Mathematical Models in High Schools*, October 13rd 2005
- Round Table on Perspectives of Applied Mathematics in Industry, Politecnico di Milano (with the Vice-Chairman of the National Industrial Association, Dr. Alberto Bombassei, the Provost of the Politecnico di Milano, the Chairman of the Poltecnico Foundation), May 23rd 2006
- FLUENT User Group Meeting, Milan, October 5th 2001 (Invited Talk)



## TEACHING

### Teaching Experience:

#### Undergraduate:

*Linear Algebra* (Math 221), Emory University, AY 2007-2008, 2008-2009

*Numerical Analysis* (Math 315), Emory University, AY 2008-2009, 2009-2010, 2010-2011

*Ordinary Differential Equations* (Math 212), Emory University, AY 2009-2010, AY 2010-2011, AY 2014-2015

*Partial Differential Equations* (Math 351), Emory University, AY 2010-2011, AY 2011-2012, AY 2012-2013 (two semesters), AY 2013-2014 (two semesters), AY 2014-2015 (two semesters) *Partial Differential Equations in Action* (Math 352), Emory University, AY 2012-2013 (Maymester), AY 2013-2014

*This course has been proposed and designed by Alessandro Veneziani for the students of Emory University*

*Foundations of Mathematical Modeling*, Emory University, Summer semester AY 2012-2013 (for high school students)

*Numerical Analysis*, Politecnico di Milano, from AY 2000-2001 to 2002-2003

*Numerical Methods in Engineering*, Politecnico di Milano, AY 2003-2004, 2004-2005

*Mathematical and Numerical Methods for Aerospace Engineering*, Politecnico di Milano, AY 2002-2003, 2003-2004

*Computational Fluid Dynamics*, Politecnico di Milano, from AY 2004-2005 to 2006-2007

*Numerical Methods for Partial Differential Equations*, Politecnico di Milano, from AY 2004-2005 to 2006-2007

*Numerical Analysis (laboratory)*, University of Verona, from AY 1997-1998 to 1999-2000

*Approximation of Differential Equations (laboratory)*, University of Verona, AY 1998-1999 1999-2000

*Computers Architecture (laboratory)*, University of Verona, AY 1998-1999

*Numerical Analysis*, University of Bergamo, AY 2000-2001, 2001-2002, 2004-2005, 2006-2007

#### Graduate:

*Computational Fluid Dynamics*, Emory University, AY 2008-2009

*Numerical Analysis II*, Emory University, AY 2007-2008, 2009-2010, 2011-2012, 2013-2014

*Numerical Partial Differential Equations*, Emory University, AY 2010-2011, AY 2012-2013, AY 2014-2015

*Mathematical and Numerical Models for the Cardiovascular System*, Politecnico di Milano, AY 2006-2007

*Numerical Methods for Engineering*, University of Bergamo, 2002-2003, 2003-2004;

*Iterative Methods for Large Sparse Linear Systems* (special topic five hours course), University of Verona, 1998-1999

#### Specialization, Continuing education Courses:

*Finite Elements: basics and applications*, Politecnico di Milano (several editions)

*Computational Fluid Mechanics*, Politecnico di Milano (several editions)

*Energy Finance and Commodity Trading (Module on C++ Programming and Finite Element Modeling)*, Politecnico di Milano (2005-2006, 2006-2007)

*Blood Flow Modeling and Simulation* at the Ecole Polytechnique Federale de Lausanne (2003)

*Blood Flow Modeling and Diagnostics* at the Technical Institute in Warsaw (Poland, 2005) *Blood Flow Modeling* at the INRIA, Paris (2004)

Course on *Mathematical Models for the Cardiovascular System* (special topics 4 hours course) at the School of Neurology, S. Gerardo Hospital, Monza (2004)

EMS-SMI Cortona Summer School *Mathematical and Numerical Models for the Cardiovascular System*, Cortona (Italy), August 16-31, 2008.

ERCOFTAC Course on *Fluid Structure Interaction in Biological Problems*, Prague (Czech Republic), August 29-September 4, 2011

Course on *Practical Computational Hemodynamics*, Pavia (Italy), July 2-5, 2012

Course on *Partial Differential Equations in Action*, Emory, Atlanta (USA), May 14-31, 2013

Course on *Computational Vascular Fluid Dynamics: from equations to software*, Pavia (Italy), July 2-4, 2013

### Text Book (author)

L. Formaggia, F. Saleri, A. Veneziani, *Solving Numerical PDE's: applications, problems and exercises*, Springer-Verlag, December 2011 (previous Italian edition published by Springer Italy 2005)

D. Borthwick, A. Veneziani, *An Introduction to Partial Differential Equations, A methodological approach*, SPRINGER, In preparation (expected: 2015)

## Students and post-docs:

- Past PhD students:

1. Alexis Aposporidis , November 2012, Emory University, USA, currently at the German Aerospace Center, DE
2. Umberto Villa, November 2012, Emory University, USA, currently at Lawrence Livermore National Lab, CA, USA
3. Marta D'Elia, November 2011, Emory University, USA, currently at Sandia National Lab, NM, USA
4. Maria Rita De Luca, March 2009 Politecnico di Milano, Italy, currently at the International School for Advanced Studies, Trieste, Italy
5. Lucia Mirabella, March 2010 Politecnico di Milano, Italy (1.5 year spent at Emory), currently at SIEMENS, Plainsboro, NJ, USA
6. Tiziano Passerini, March 2009, Politecnico di Milano, Italy (1.5 year spent at Emory), currently at SIEMENS, Plainsboro, NJ, USA
7. Mauro Perego, March 2009, Politecnico di Milano, Italy (1.5 year spent at Emory), currently at Sandia National Lab, NM, USA
8. C. Vergara, February 2006, Politecnico di Milano, Italy, currently assistant professor at University of Bergamo, Italy
9. S. Ragni (Co-advisor), July 2002, Politecnico di Milano, Italy. Advisor: Alfio Quarteroni, currently associate professor at University of Sassari, Italy

- Current PhD students:

1. Anastasia Svishcheva (expected 2014) - Emory University, USA;
2. Luca Bertagna (expected 2014) - Emory University, USA;
3. Huanhuan Yang (expected 2015) - Emory University, USA;
4. Boyi Yang (expected 2015) - Emory University, USA;
5. Jim Munch (expected 2016) - Emory University, USA;
6. Ricardo J Bonilla - GA Tech, USA;
7. Sofia Guzzetti - Emory University, USA
8. Alex Vigueire - Emory University, USA
9. Alessandro Barone- Emory University, USA (beginning Jan 2015)

- Honors and SIRE Students

1. Kexin Qu, Emory University (2014)
2. Shannon Buckley, Emory University (2014)
3. Ye Yan, Emory University (2014)
4. Lan Mi, Emory University (2013)
5. Yifen Wang, Emory University (2013)
6. Dylan Connor, Emory University (2012)
7. Josh Keller, Emory University (2011)
8. Ruth Blum, Emory University (2010)
9. Elizabeth M. Cappello, Emory University (SIRE, 2010-2011)

- Other undergraduate students for small research projects (all at Emory University)

1. Emma Accorsi (2013)
2. Binjie Wei (2013)
3. Ngoc Hoan Lam Phan (2013)
4. Hamzah Iqmal (2012)
5. Jin Jing (2012)

• Past MSc students (Italy):

1. A. Barone, Politecnico Milano, Mathematical Engineering (Coadvisor, Advisor: S. Perotto), (expected 2014)
2. S. Guzzetti, Politecnico Milano, Mathematical Engineering (Coadvisor, Advisor: S. Perotto), 2014
3. M. Lupo Pasini, Politecnico Milano, Mathematical Engineering (Coadvisor, Advisor: S. Perotto), 2013
4. M. Aletti, Politecnico Milano, Mathematical Engineering (Coadvisor, Advisor: S. Perotto), 2013
5. R. Sala, Politecnico Milano, Aerospace Engineering, 2008
6. A. M. Costa, Politecnico Milano, Biomedical Engineering, 2007
7. S. Vele, Politecnico Milano, Mathematical Engineering, 2007
8. E. Maculan, Politecnico Milano, Mathematical Engineering, 2007
9. L. Botti, University of Bergamo, Mechanical Engineering (coop. With M. Negri Institute) 2006
10. M. Gazzola, Politecnico Milano, Nuclear Engineering, 2006
11. M. Astorino, Mathematical Engineering (in cooperation with Ducati Motor Holding)
12. L. Sala, University of Brescia, Mechanical Engineering 2005 (Coadvisor; Adv: Prof. P.Gervasio)
13. T. Passerini, Politecnico Milano, Biomedical Engineering, 2005
14. M. Perego, Politecnico Milano, Electronic Engineering, 2005
15. M.R. De Luca, Politecnico Milano, Biomedical Engineering, 2005
16. G. Pierantoni, University of Bergamo, Mechanical Engineering (coop. With M. Negri Institute) 2005
17. W. Mandelli, University of Bergamo, Mechanical Engineering (coop. With Brembo) 2004
18. P. Gabbiadini, University of Bergamo, Mechanical Engineering (coop. With Brembo) 2004
19. M. Meneghin, Politecnico di Milano, Energetic Engineering, 2004
20. A. Frullone, Politecnico Milano, Electronic Engineering, 2003
21. A. Gilardi, Politecnico di Milano, Aerospace Engineering, 2002
22. D. Mastalli, Politecnico Milano, Aerospace Engineering, 2002
23. C. Vergara, Politecnico Milano, Biomedical Engineering, 2002
24. G. Pertile, University of Verona, Computer Science 2002
25. C. Cavašin, University of Milan, Mathematics (Coadvisor; Adv: Prof. F. Saleri)
26. A. Di Matteo, Politecnico Milano, Aerospace Engineering, 2002
27. R. Bissoli, University of Verona, Computer Science, 2000
28. G. Concesa, Politecnico Milano, Electronic Engineering, 2000 (Coadvisor; Adv: Prof. A. Quarteroni)
29. V. Oliva, Politecnico Milano, Biomedical Engineering, 2000 (Coadvisor; Adv: Prof. A. Remuzzi)
30. S. Perticoni, Politecnico di Milano, Computer Science Engineering, 2002
31. G. L. Gamba, Politecnico Milano, Aerospace Engineering, 1999 (Coadvisor; Adv: Prof. A. Quarteroni)
32. S. Bellocchio, University of Milano, Mathematics, 1999 (Coadvisor; Adv: Prof. F. Saleri)
33. P. Zunino, Politecnico Milano, Aerospace Engineering, 1998 (Coadvisor; Adv: Prof. A. Quarteroni)

34. F. Nobile, Politecnico Milano, Electronic Engineering, 1998 (Coadvisor; Adv: Prof. A. Quarteroni)

• Post-doc:

1. Gaetano Esposito, Emory University (2014-present)
2. Leandro Gryngarten, Emory University (2013 - present)
3. Tiziano Passerini, Emory University (2010-2013), currently at SIEMENS, Plainsboro, NJ, USA
4. Mauro Perego, Emory University (2009-2010), currently at Sandia National Lab, NM, USA
5. Lucia Mirabella, Emory University (2010), currently at SIEMENS, Plainsboro, NJ, USA
6. Luca Gerardo Giorda, Emory University (2008-2009), currently senior researcher at the Basque Center for Applied Math (BCAM), Bilbao, Spain
7. Christian Vergara, Politecnico di Milano (2006-2007) , currently assistant professor at University of Bergamo, Italy



## SERVICE

### Institutional Activities:

- Member of Undergraduate Studies Committee, Dept. of Math & CS, Emory University (2011-present)
- PACE Advising for freshmen, Emory University (2010-present)
- Hiring Committee for a position in Computational Mathematics, Math & CS, Emory, USA, 2013-2014
- PhD Committee, Maria Restrepo, GA Tech, 2014
- PhD Committee, Sebastian Berisha, Emory University, USA, 2014
- PhD Committee, Jaroslaw Slawinski, Emory University, USA, 2013
- PhD Committee, Veronica Bustamante, Emory University, USA, 2013
- Hiring Committee for a position in Computational Imaging Science, Math & CS and Radiology, at Emory, USA, 2012
- PhD Committee, Marina Piccinelli, TU Eindhoven, The Netherlands, USA, 2012
- PhD Committee, Cristobal Bertoglio, Paris VI, France, 2012
- PhD Committee, Verhena Khulemann, Emory University, USA, 2012
- PhD Committee, Zheng Wang, Emory University, USA, 2011
- Honor Student Committee, Adam Waxman, Emory University, USA, 2011
- Honor Student Committee, James Nance, Emory University, USA, 2011
- PhD Proposal Committee, Elaine Tang, GA Tech, USA, 2012
- PhD Proposal Committee, Maria Restrepo, GA Tech, USA, 2011
- PhD Committee, Zhojhou Magnant, Emory University, USA, 2011
- PhD Committee, Steven Hamilton, Emory University, USA, 2011
- PhD Committee, Raya Horesh, Emory University, USA, 2010
- PhD Proposal Committee, Ian Campbell, GA Tech, USA, 2009
- PhD Committee, Piotr Wendykier, Emory University, USA, 2009
- University of Verona, Member of the Committee for the PhD Program in Cardiovascular Sciences (2006-2008)
- Politecnico di Milano, Member of the Committee for the PhD Program in Mathematical Engineering (2006-2007)
- Hiring Committee for an Assistant Professor, Numerical Analysis, University of Bergamo (2007)
- PhD Committee, Daniele Lamponi, EPFL Lausanne, Switzerland, 2004
- Politecnico di Milano Graduate studies committee (2000-2007) in Aerospace, Biomedical, Mathematical Engineering.
- Co-developer of PhD track in Mathematical Engineering, Politecnico di Milano(2003) (Faculty Committee)
- University of Verona Graduate studies committee (1997-2000) in Computer Science.



## Professional Activities:

- Member of the American Mathematical Society (AMS)
- Member of the Society for Industrial and Applied Mathematics (SIAM)
- Member of the Scientific Board of the Center HTH (Human factors and Technology in Healthcare, Feb 2013 - present), University of Bergamo, Italy

## Editorial Work:

- Member of the Editorial Board of the International Journal of Numerical Methods in Bioengineering
- Member of the Review Editorial Board of Frontiers in Pediatric Cardiology (Frontiers in Pediatrics)
- Refereed about 75 papers for the following journals: *Inverse Problems*, *Numer Math*, *Computers and Fluids*, *Computer in Biology and Medicine*, *J. Biomechanics*, *M2AN*, *Num Meth for PDE's*, *European J of Mechanics-B/Fluids*, *J Fluid Mech*, *Comp Meth Appl Mech Engr.*, *Annals of Biomed Engr*, *Arch Appl Math*, *SIAM J Sc Comp*, *SIAM J Num Anal*, *J Comp Phys*, *Int J Num Meth Eng*, *SIAM J Sci Comp*, *Int J Num Meth Biomed Eng*, *J Med Devices*
- Reviewer for the American Mathematical Society

## Conferences and Minisymposia Organized, Program/Scientific Committees:

(13 out of 18 after joining Emory)

- ICERM Conference From the Clinic to Partial Differential Equations and Back: Emerging challenges for Cardiovascular Mathematics (January 20 - 24, 2014), Brown University 2014
- Minisymposium "Surrogate modeling approaches for PDEs", ENUMATH2013, August 2013, Lausanne, CH (with S. Perotto, K. Smetana)
- *Georgia Scientific Computing*, Emory University, February 12th 2011.
- Minisymposium "Computational Approaches to the Risk Assessment for Cerebral Aneurysms", ICIAM 2011, July 18 - 22, 2011, Vancouver, BC, Canada (with M. Picinelli and T. Passerini)
- Minisymposium "Inverse problems in Cardiovascular Mathematics", ICIAM 2011, July 18 - 22, 2011, Vancouver, BC, Canada (with M. Perego)
- Minisymposium "Mathematical Models and Numerical Methods for Cardiac Electromechanics", ICIAM 2011, July 18 - 22, 2011, Vancouver, BC, Canada (with L. Mirabella)
- Minisymposium "Patient specific modeling of blood flow problems", MATHEMATICS OF MEDICAL IMAGING, Toronto, Canada, June 20th-24th (with D. Steinman)
- Minisymposium "Computational approaches to the risk assessment for cerebral aneurysms" SIAM CSE 2011, Feb 28 - March 4, 2011 (with M. Picinelli and T. Passerini)
- Minisymposium "Computational challenges in patient-specific modeling: images, data and simulations" SIAM CSE 2011, Feb 28- March 4, 2011
- Minisymposium "Inverse Vascular Mathematics" (with C. Vergara), 2nd International Conference on Mathematical and Computational Biomedical Engineering - CMBE2011 March 30 - April 1, 2011, Washington D.C., USA
- Minisymposium "Methods of Numerical Cardiac Electro-Mechanics" (with L. Mirabella, M. Perego), 2nd International Conference on Mathematical and Computational Biomedical Engineering - CMBE2011 March 30 - April 1, 2011, Washington D.C., USA





- Minisymposium "Cardiovascular Mathematics" (with L Gerardo Giorda) at IMACS Conference 2009, Athens (GA), August 3-7, 2009.
- Minisymposium "Cardiovascular Mathematics" (with JF Gerbeau) at SIAM CSE Meeting 2009, Miami (FL), March 2-6, 2009.
- III Workshop on Modeling of Physiological Flows, Villa Camozzi (Ranica-BG), 25-27 Settembre 2006
- INDAM Workshop "Integrazione di Sistemi Complessi in Biomedicina: modelli, simulazioni, rappresentazioni", Bergamo, 22-24 November 2004
- First Internal Meeting Haemodel European Project, Bergamo, 29 April-2 May 2003
- International Workshop: "Cardiovascular System: from mathematics to clinical applications", Milan 6-8 March 2002
- Minisymposium: "Computational Hemodynamics: Problems and Methods", XI ECMI Conference, Altavilla Milicia (PA), September 2000



Rel. 2.3

## RELAZIONE DELLA CPS PER LE CHIAMATE DIRETTE

Roma, 3 ottobre 2014

La commissione si è riunita presso il dipartimento il 3 ottobre alle ore 14 per esaminare la documentazione e formulare una proposta per le chiamate dirette. Da un contatto con i membri della commissione di Facoltà (Salvati Manni e Birindelli) risulta che l'unica domanda pervenuta effettivamente praticabile con tempi così stretti sia quella presentata da Maurizio Falcone per il Prof. Alessandro Veneziani nella posizione di Professore Associato (PA)

### Medaglione del Prof Veneziani

nato il 25 Maggio 1969 ed attualmente professore associato presso il Department of Mathematics & Computer Science, Emory University, Atlanta (GA) USA.

### Formazione

Dottorato Computational and Applied Mathematics, Università di Milano, 1998,  
Titolo: Mathematical and Numerical Modeling of Blood Flow Problems, July 1998, Alfio Quarteroni, advisor.  
Laurea (Master of Science) in Electronic Engineering, Politecnico di Milano, 1994

### Altre posizioni (ultimi 5 anni)

External Program Faculty Department of Biomedical Engineering, Georgia Institute of Technology Atlanta (GA) USA (dal 2009) Visiting Professor, Università di Bergamo, Luglio 2013

### Interessi di ricerca

Metodi Numerici per le EDP, Elementi Finiti, Tecniche di preconditionamento, Fluidodinamica computazionale, Decomposizione di domini, Modellistica multiscala, Modellistica numerica del sistema cardiovascolare,

### Pubblicazioni e premi

E' autore di 61 articoli su riviste interazioni di ottimo livello, 10 capitoli su volume (referti), 21 atti di convegno. Ha ottenuto l'Idoneità a PO SSD Analisi Numerica nella prima ASN.  
E' stato insignito del Premio Sacchi Landriani per giovani analisti numerici nell'ambito delle equazioni a derivate parziali nel 2006; un suo lavoro con Alfio Quarteroni e Paolo Zunino e' stato insignito del SIAM Outstanding Paper Prize nel 2004.

### Numero di pubblicazioni ISI:

80 (Scopus)

Fattore H: Google Scholar: 26 (dal 2009: 24); SCOPUS: 18

h-c (basato su Scopus): 12

### Numero totale di citazioni:

Google Scholar: 2828 (dal 2009: 1971) SCOPUS: 1150 (dal 2010: 669)

Soglie Mediane ANVUR per il Settore Concorsuale

Num Articoli Normalizzato: 15.5 (Veneziani: 63 - da SCOPUS)

Num Citazioni Normalizzato: 15.72 (Veneziani: 63.88 - da SCOPUS)

h-c: 7 (Veneziani: 12 - da SCOPUS)

Il Prof. Veneziani ha dichiarato la sua ampia e convinta disponibilità a venire alla SAPIENZA dal Novembre 2015.

Ha recentemente vinto due grant della NSF ed ha coordinato vari progetti di ricerca nell'ambito della fluidodinamica computazionale con applicazioni alla biomedicina.

La commissione unanime appoggia la proposta di chiamata diretta su un posto di PA MAT/08 Analisi Numerica

Roma, 3 ottobre 2014

Luigi Orsina

Maurizio Falcone

Paolo Piazza

## Curriculum vitae et studiorum – Enzo Pascale

Cardiff University – School of Physics and Astronomy  
Queen's Buildings, 5 The Parade  
Cardiff CF24 3AA  
United Kingdom  
Tel.: +44 2920 875031

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### Research interests

Observational Cosmology – Cosmic Microwave Background – CMB polarization – Submillimeter Galactic and extragalactic astronomy – Star Formation – Extrasolar Planets – Astronomy Instrumentation.

### Academic Experience

- Senior lecturer, Cardiff University, UK, Aug. 2012-present
- Lecturer, Cardiff University, UK, Oct. 2007-Jul. 2012
- PDRA, National Research Council–IROE, Italy, Jan. 1999-Dec. 2002
- PDRA, California Institute of Technology, CA, USA, 1996-1999

### Grants and Fellowships

- UKSA EChO Study Support 2013-2014 [PI, £26]
- STFC-PRD, “BETTII FIR Interferometer”, 2012-2015 [PI, £179K]
- FP7, SP1-Cooperation, “Far Infrared Space Interferometer Critical Assessment”, 2013-2015 [PI, €350K]
- ESA-TRP, “Feasibility of using nanotechnology to improve TIR satellite imagers”, 2012 [CoI, £123K]
- UKSA, “EChO phase/a study”, 2011-2014 [PI, £47K]
- ESA-TRP, “Modular wide field of view RF configurations”, 2010-2012 [CoI, €200K]
- Leverhulme Trust, “A study of Galactic polarized dust with BLAST-pol”, 2011-2013 [PI, £185K]
- STFC PATT Rolling Grant, 2012-2014 [CoI, £20K]
- STFC PATT Rolling Grant, 2010-2012 [CoI, £22K]
- STFC PATT Rolling Grant, 2008-2010 [CoI, £49K]
- STFC Consolidated Grant, 2013-2016 [CoI, £2.1M]
- STFC Instrumentation Rolling Grant, 2012-2013 [CoI, £0.98M]
- STFC Astro Rolling grant, 2010-2013 [CoI, £2.3M]
- STFC Instrumentation Rolling Grant, 2009-2012 [CoI, £2.2M]
- Cardiff University, “Start up grant”, [PI, £100K]
- Ontario Graduate Scholarship (OGS), 2004-2005
- Cardiff University CUROP studentships awarded in 2010, 2012, 2013 (one in each year)

Note: Information about STFC and UKSA grants can be collected from the [RCUK web page](#).

## Education

- Ph.D. in Experimental Physics, University of Toronto, ON, Canada. Advisor: Prof. C. B. Netterfield (defence 2007).
- Laurea in Experimental Physics, *summa cum laude*, University of Rome “La Sapienza”, Italy, 1996

## Professional Training

- Leadership & Management Development Programme for Research Team Leaders, Modules 1 and 2 (2014)
- Cardiff University Equality & Diversity awareness training for staff with line management responsibilities (2014) with line management responsibilities
- Postgraduate Certificate in University Teaching and Learning, PCUTL, 2010.

## Memberships and Peer-reviews

- School board member, School of Physics and Astronomy, Cardiff University
  - Research committee member, School of Physics and Astronomy, Cardiff University
  - Exam panel member, School of Physics and Astronomy, Cardiff University
  - Space Action Network (SPAN) member.
  - Fellow of the Higher Education Academy.
  - Fellow of the Royal Astronomical Society.
  - University of Toronto Alumni Association.
- 
- I peer-review grant applications submitted to the NSF in the USA, and to the STFC in the UK.
  - I referee papers submitted to several specialist journals: Astrophysical Journal, Applied Optics, Journal of Instrumentation, MNRAS and Icarus. I have been a member of the editorial board of Dataset Papers in Science until Feb. 2014.

## Outreach

Popular papers on national/European and overseas newspapers; tv and radio interviews in the UK, Canada and Italy; Organised UK screening of the documentary film “Blast”, co-produced by BBC; gave several non-specialist talks on topic related to balloon-borne astronomy in the UK and in the USA.

## Technical expertise

Scientific instrumentation. All major programming languages (C, C++, Python, Fortran) and operating systems. Fluent in IDL, Matlab, Mathematica and Matcad. Digital electronics and FPGA development. Analogue electronics. Signal processing. Noise analysis and modelling, etc.

## Languages

Native Italian, fluent in English, very good understanding of French.

## Projects

### Ongoing

- Atmospheric Remote-sensing Infrared Exoplanet Large-survey – ARIEL [Col].
- Twinkle: a UK-led transit spectrometer experiment in Near-Earth Orbit [Col]
- SpEChO, exoplanet transit spectrometer instrument on SPICA [Col]

- The Exoplanet Characterisation Observatory – EChO [Col]
- The Balloon-borne Exoplanet Transit Spectrometer Pathfinder [Col]
- The balloon-borne exoplanet characterization experiment - EchOBeach [PI]
- Far-IR Space Interferometer Critical Assessment – FISICA [PI]
- Readout electronics and data acquisition systems for Kinetic Inductance Detectors [Cardiff lead]
- KIDCam: Passive THz and submm imaging [Col]
- Millimeter-wave cameras: NIKA, NIKA2 and ToITEC [Col]
- The Balloon-borne Far-IR interferometer – BETTII [Cardiff PI]
- The Balloon-borne Large-Aperture Submillimetric Telescope – BLAST, BLAST–Pol and BLAST–TNG [Cardiff PI]
- The E and B Experiment – EBEX [Cardiff PI]

#### **Completed**

- *Infrared Balloon Experiment, IBEX* [Instrument scientist]
- *Spectroscopy of the atmosphere by Far Infrared Emission – Airborne, SAFIRE–A* [team member]
- *Balloon Observation Of Millimetric Extragalactic Radiation and Geophysics, BOOMERanG* [team member]
- *Millimeter wave Anisotropy eXperiment Imaging Array, MAXIMA* [collaborator]
- *Millimeter wave Anisotropy eXperiment, MAX* [collaborator]

#### **Teaching and examination**

##### *As Module Organizer – Undergraduate:*

|           |                                         |                                            |
|-----------|-----------------------------------------|--------------------------------------------|
| 2007/2011 | Investigative Physics                   | (PX1217, 1 <sup>st</sup> year, 10 credits) |
| 2007/2012 | Electromagnetism                        | (PX2224, 2 <sup>nd</sup> year, 10 credits) |
| 2011/2013 | Mathematics for Physical Scientists II, | (PX1216, 1 <sup>st</sup> year, 10 credits) |
| 2012/now  | Physics of the Early Universe           | (PX4223, 4 <sup>th</sup> year, 10 credits) |
| 2013/now  | Cosmology                               | (PX3146, 3 <sup>th</sup> year, 10 credits) |

##### *As Deputy Module Organizer – Undergraduate:*

|           |                                         |                                            |
|-----------|-----------------------------------------|--------------------------------------------|
| 2011/2013 | Mathematical Methods for Physicists I   | (PX1122, 1 <sup>st</sup> year, 10 credits) |
| 2012/2013 | Physical Cosmology                      | (PX3231, 3 <sup>rd</sup> year, 10 credits) |
| 2008/2011 | Electricity and Magnetism               | (PX1210, 1 <sup>st</sup> year, 10 credits) |
| 2008/2011 | Electronics and Instrumentation         | (PX2107, 2 <sup>nd</sup> year, 10 credits) |
| 2011/2012 | Computing in Physics                    | (PX2116, 2 <sup>nd</sup> year, 10 credits) |
| 2013/now  | The Universe from Particles to Galaxies | (PX1124, 1 <sup>st</sup> year, 10 credits) |

##### *As Project Supervisor and tutor – Undergraduate:*

- Since 2008, I have been supervising undergraduate students during their 3rd and 4th year project (worth 20 and 60 credits, respectively) or during their summer placements in my laboratory.
- Since 2007, I have covered the role of personal and academic tutor of several undergraduate students.
- Cardiff University Research Opportunities Programme (CUROP) students: 2010, mr S. Rowe; 2012 mr I. Meek, 2013 mr J. Johnstone.
- Mr E. Phan Van Song, Univerite' Paris–Sud, 2013 (Summer training)

#### **Postgraduate teaching**

2009/now Postgraduate lectures on photometric techniques.  
2013/now Postgraduate lectures on astronomy instrumentation.

### **Ph.D. students supervised and Ph.D. examinations**

#### *Students supervised*

2008/2011 Ph.D. Primary Supervisor, dr L. Moncelsi  
2009/2014 Ph.D. Second Supervisor, dr R. Juanola–Parramon (UCL).  
2011/now Ph.D. Primary Supervisor, mr S. Rowe (6 month extension awarded)  
2013/now Ph.D. Primary Supervisor of mr S. Sarkar

#### *Ph.D. Vivas*

2011, dr G. Raymond (Internal examiner)  
2013, mr J. Yu (Internal examiner)  
2014, dr. E. Pearson (Internal examiner)

### **Post-doctoral Research Assistants**

- Dr D. Nutter, dr F. Poidevin, dr R. Auld, dr. R. Sudiwala, dr W. Grainger, dr. L. Spencer, dr. P. Moseley.

### **Conferences Scientific Organising Committees**

- Session organizer and convener (Exoplanet instrumentation): NAM 2014
- Session organizer and convener (Exoplanet instrumentation): EPSC 2014
- Session organizer and convener (Exoplanet instrumentation): EPSC 2013
- Organiser, Exoplanet Characterisation Observatory, UK National Workshop, a Royal Astronomical Society Specialist Meeting, London 2013.
- Organiser, Second European Workshop on Far-IR Interferometry Technology Development, Cardiff 2011

### **Recent Invited Talks**

- EPSC 2014
- EPSC 2013
- Scientific Committee on Antarctic Research, Astronomy and Astrophysics from Antarctica, Siena 2013 (two presentations invited)
- Oxford, Atmospheric, Oceanic and Planetary Physics, Oxford 2013
- IAU General Assembly, Astrophysics from Antarctica, Beijing 2012
- University College London, London 2010
- Arena Conference "An Astronomical Observatory at Concordia for the next decade", Rome 2009
- Imperial College London, London 2009
- SPICA: Joint European Japanese Workshop Science Programme, Oxford 2009

### **National/International Conferences attended**

In addition to the invited talks listed above, I have recently attended the following international conferences since appointment to senior lecturer.

- Exoplanet UK Community Meeting – Cambridge, April 14-16 2014, Poster contribution
- Exoplanet Characterisation Observatory, UK National Workshop, a Royal Astronomical Society Specialist Meeting, London 2013, poster contribution
- SPIE, Amsterdam 2012, Oral presentation
- SPIE, Amsterdam 2012, Poster contribution

## Publications

Over 100 refereed publications, h-index 44.

A list of refereed publications can be found at the following [link](#).

A list of non-refereed publications can be found at the following [link](#).

## Selected Publications

Ordered by Date (most recent first)

1. Matthews, T. G., Ade, P. A. R., Angile', F. E., Benton, S. J., Chapin, E. L., Chapman, N. L., Devlin, M. J., Fissel, L. M., Fukui, Y., Gandilo, N. N., Gundersen, J. O., Hargrave, P. C., Klein, J., Korotkov, A. L., Moncelsi, L., Mroczkowski, T. K., Netterfield, C. B., Novak, G., Nutter, D., Olmi, L., **Pascale, E.**, Poidevin, F., Savini, G., Scott, D., Shariff, J. A., Soler, J. D., Tachihara, K., Thomas, N. E., Truch, M. D. P., Tucker, C. E., Tucker, G. S., Ward-Thompson, D.  
*"Lupus I Observations from the 2010 Flight of the Balloon-borne Large Aperture Submillimeter Telescope for Polarimetry"*  
ApJ, 714, 116, 2014. Journal Impact Factor 7.436.
2. Adam, R., Comis, B., Maci'as-Pe'rez, J.-F., Adane, A., Ade, P., Andre', P., Beelen, A., Belier, B., Benoit, A., Bideaud, A., Billot, N., Boudou, N., Bourrion, O., Calvo, M., Catalano, A., Coiffard, G., D'Addabbo, A., De'sert, F.-X., Doyle, S., Goupy, J., Kramer, C., Leclercq, S., Martino, J., Mauskopf, P., Mayet, F., Monfardini, A., Pajot, F., **Pascale, E.**, Perotto, L., Pointecouteau, E., Ponthieu, N., Reve'ret, V., Rodriguez, L., Savini, G., Schuster, K., Sievers, A., Tucker, C., Zylka, R.  
*"First observation of the thermal Sunyaev-Zel'dovich effect with Kinetic Inductance Detectors"*  
A&A (submitted), arXiv:1310.6237 (2013). Journal Impact Factor 4.410.
3. Tessenyi, M., Tinetti, G., Savini, G., **Pascale, E.**  
*"Molecular detectability in exoplanetary emission spectra"*  
Icarus, 226, 1654 (2013). Journal Impact Factor 3.190.
4. Tinetti, G.; Beaulieu, J. P.; Henning, T.; Meyer, M.; Micela, G.; Ribas, I.; Stam, D.; Swain, M.; Krause, O.; Ollivier, M.; Pace, E.; Swinyard, B.; Aylward, A.; van Boekel, R.; Coradini, A.; Encrenaz, T.; Snellen, I.; Zapatero-Osorio, M. R.; Bouwman, J.; Y-K. Cho, J.; Coudé du Foresto, V.; Guillot, T.; Lopez-Morales, M.; Mueller-Wodarg, I.; Palle, E.; Selsis, F.; Sozzetti, A.; Ade, P. A. R.; Achilleos, N.; Adriani, A.; Agnor, C. B.; Afonso, C.; Allende Prieto, C.; Bakos, G.; Barber, R. J.; Barlow, M.; Bernath, P.; Bezard, B.; Bordé, P.; Brown, L. R.; Cassan, A.; Cavarroc, C.; Ciaravella, A.; Cockell, C. O. U.; Coustenis, A.; Danielski, C.; Decin, L.; De Kok, R.; Demangeon, O.; Deroo, P.; Doel, P.; Drossart, P.; Fletcher, L. N.; Focardi, M.; Forget, F.; Fossey, S.; Fouqué, P.; Frith, J.; Galand, M.; Gaulme, P.; González Hernández, J. I.; Grasset, O.; Grassi, D.; Grenfell, J. L.; Griffin, M. J.; Griffith, C. A.; Grözing, U.; Guedel, M.; Guio, P.; Hainaut, O.; Hargreaves, R.; Hauschildt, P. H.; Heng, K.; Heyrovsky, D.; Hueso, R.; Irwin, P.; Kaltenegger, L.; Kervella, P.; Kipping, D.; Koskinen, T. T.; Kovács, G.; La Barbera, A.; Lammer, H.; Lellouch, E.; Leto, G.; Lopez Morales, M.; Lopez Valverde, M. A.; Lopez-Puertas, M.; Lovis, C.; Maggio, A.; Maillard, J. P.; Maldonado Prado, J.; Marquette, J. B.; Martin-Torres, F. J.; Maxted, P.; Miller, S.; Molinari, S.; Montes, D.; Moro-Martin, A.; Moses, J. I.; Mousis, O.; Nguyen Tuong, N.; Nelson, R.; Orton, G. S.; Pantin, E.; **Pascale, E.**; Pezzuto, S.; Pinfield, D.; Poretti, E.; Prinja, R.; Prisinzano, L.; Rees, J. M.; Reiners, A.; Samuel, B.; Sanchez-Lavega, A.; Sanz Forcada, J.; Sasselov, D.; Savini, G.; Sicardy, B.; Smith, A.; Stixrude, L.; Strazzulla, G.; Tennyson, J.; Tessenyi, M.; Vasisht, G.; Vinatier, S.; Viti, S.; Waldmann, I.; White, G. J.; Widemann, T.; Wordsworth, R.; Yelle, R.; Yung, Y.; Yurchenko, S. N.  
*"EChO - Exoplanet Characterisation Observatory"*  
Exp Astron, 34, 311 (2012). Journal Impact Factor: 2.14,
5. **Pascale, E.** Auld, R. Dariush, A. Dunne, L. Eales, S. Maddox, S. Panuzzo, P. Pohlen, M. Smith, D. J. B. Buttiglione, S. Cava, A. Clements, D. L. Cooray, A. Dye, S. de Zotti, G. Fritz, J. Hopwood, R. Ibar, E. Ivison, R. J. Jarvis, M. J. Leeuw, L. López-Caniego, M. Rigby, E. Rodighiero, G. Scott, D. Smith, M. W. L. Temi, P. Vaccari, M. Valtchanov, I.  
*"The first release of data from the Herschel ATLAS: the SPIRE images"*  
Monthly Notices of the Royal Astronomical Society, Volume 415, Issue 1, pp. 911-917". Year: 2011. Journal Impact Factor 4.888.
6. "Moncelsi, Lorenzo Ade, Peter A. R. Chapin, Edward L. Cortese, Luca Devlin, Mark J. Dye, Simon Eales,

Stephen Griffin, Matthew Halpern, Mark Hargrave, Peter C. Marsden, Gaelen Mauskopf, Philip Netterfield, Calvin B. **Pascale**, Enzo Scott, Douglas Truch, Matthew D. P. Tucker, Carole Viero, Marco P. Wiebe, Donald V.

**"A Panchromatic Study of BLAST Counterparts: Total Star Formation Rate, Morphology, Active Galactic Nucleus Fraction, and Stellar Mass"**

The Astrophysical Journal, Volume 727, Issue 2, article 83 (2011). Journal Impact Factor 7.436.

7. Mattia Negrello, R. Hopwood, G. De Zotti, A. Cooray, A. Verma, J. Bock, D. T. Frayer, M. A. Gurwell, A. Omont, R. Neri, H. Dannerbauer, L. L. Leeuw, E. Barton, J. Cooke, S. Kim, E. da Cunha, G. Rodighiero, P. Cox, D. G. Bonfield, M. J. Jarvis, S. Serjeant, R. J. Ivison, S. Dye, I. Aretxaga, D. H. Hughes, E. Ibar, F. Bertoldi, I. Valtchanov, S. Eales, L. Dunne, S. P. Driver, Auld, S. Buttiglione, A. Cava, C. A. Grady, D. L. Clements, A. Dariush, J. Fritz, D. Hill, J. B. Hornbeck, L. Kelvin, G. Lagache, M. Lopez-Caniego, J. Gonzalez-Nuevo, S. Maddox, **E. Pascale**, M. Pohlen, E. E. Rigby, A. Robotham, C. Simpson, D. J. B. Smith, P. Temi, M. A. Thompson, B. E. Woodgate, D. G. York, J. E. Aguirre, A. Beelen, A. Blain, A. J. Baker, M. Birkinshaw, R. Blundell, C. M. Bradford, D. Burgarella, L. Danese, et al. (25 additional authors not shown)  
**"The Detection of a Population of Submillimeter-Bright, Strongly-Lensed Galaxies"**  
 Science, 330, 899, (2010). Journal Impact Factor 31.2
8. Devlin, Mark J., Ade Peter A. R., Aretxaga Itziar, Bock James, J. Chapin Edward, L. Griffin Matthew, Gundersen Joshua, O. Halpern Mark, Hargrave Peter, C. Hughes David, H. Klein Jeff, Marsden Gaelen, Martin Peter G., Mauskopf Philip, Moncelsi Lorenzo, Netterfield Calvin B., Ngo Henry, Olmi Luca, **Pascale Enzo**, Patanchon Guillaume, Rex Marie, Scott Douglas, Semisch Christopher, Thomas Nicholas, Truch Matthew D. P., Tucker Carole, Tucker Gregory S., Viero Marco P., Wiebe Donald V.  
**"Over half of the far-infrared background light comes from galaxies at  $z \geq 1.2$ "**  
 Nature, Volume 458, Issue 7239, pp. 737-739 (2009). Journal Impact Factor 36.101.
9. **Pascale Enzo**, Ade, Peter A. R. Bock, James J. Chapin, Edward L. Devlin, Mark J. Dye, Simon Eales, Steve A. Griffin, Matthew Gundersen, Joshua O. Halpern, Mark Hargrave, Peter C. Hughes, David H. Klein, Jeff Marsden, Gaelen Mauskopf, Philip Moncelsi, Lorenzo Ngo, Henry Netterfield, Calvin B. Olmi, Luca Patanchon, Guillaume Rex, Marie Scott, Douglas Semisch, Christopher Thomas, Nicholas Truch, Matthew D. P. Tucker, Carole Tucker, Gregory S. Viero, Marco P. Wiebe, Donald V.  
**"BLAST: A Far-Infrared Measurement of the History of Star Formation"**  
 The Astrophysical Journal, Volume 707, Issue 2, pp. 1740-1749 (2009). Journal Impact Factor 7.436.
10. **Pascale, E.** Ade, P. A. R. Bock, J. J. Chapin, E. L. Chung, J. Devlin, M. J. Dicker, S. Griffin, M. Gundersen, J. O. Halpern, M. Hargrave, P. C. Hughes, D. H. Klein, J. MacTavish, C. J. Marsden, G. Martin, P. G. Martin, T. G. Mauskopf, P. Netterfield, C. B. Olmi, L. Patanchon, G. Rex, M. Scott, D. Semisch, C. Thomas, N. Truch, M. D. P. Tucker, C. Tucker, G. S. Viero, M. P. Wiebe, D. V.  
**"The Balloon-borne Large Aperture Submillimeter Telescope: BLAST"**  
 The Astrophysical Journal, Volume 681, Issue 1, pp. 400-414 (2008). Journal Impact Factor 7.436.
11. Netterfield, Calvin B. Ade, Peter A. R. Bock, James J. Chapin, Edward L. Devlin, Mark J. Griffin, Matthew Gundersen, Joshua O. Halpern, Mark Hargrave, Peter C. Hughes, David H. Klein, Jeff Marsden, Gaelen Martin, Peter G. Mauskopf, Phillip Olmi, Luca **Pascale**, Enzo Patanchon, Guillaume Rex, Marie Roy, Arabindo Scott, Douglas Semisch, Christopher Thomas, Nicholas Truch, Matthew D. P. Tucker, Carole Tucker, Gregory S. Viero, Marco P. Wiebe, Donald V.  
**"BLAST: The Mass Function, Lifetimes, and Properties of Intermediate Mass Cores from a 50 deg<sup>2</sup> Submillimeter Galactic Survey in Vela ( $\ell \sim 265^\circ$ )"**  
 The Astrophysical Journal, Volume 707, Issue 2, pp. 1824-1835 (2009). Journal Impact Factor 7.436.
12. de Bernardis, P. Ade, P. A. R. Bock, J. J. Bond, J. R. Borrill, J. Boscaleri, A. Coble, K. Crill, B. P. De Gasperis, G. Farese, P. C. Ferreira, P. G. Ganga, K. Giacometti, M. Hivon, E. Hristov, V. V. Iacoangeli, A. Jaffe, A. H. Lange, A. E. Martinis, L. Masi, S. Mason, P. V. Mauskopf, P. D. Melchiorri, A. Miglio, L. Montroy, T. Netterfield, C. B. **Pascale**, E. Piacentini, F. Pogosyan, D. Prunet, S. Rao, S. Romeo, G. Ruhl, J. E. Scaramuzzi, F. Sforna, D. Vittorio, N.  
**"A flat Universe from high-resolution maps of the cosmic microwave background radiation"**  
 Nature, Volume 404, Issue 6781, pp. 955-959 (2000). Year: 2000. Journal Impact Factor 36.101.





# Sandro De Cecco - Curriculum Vitæ:

Nome : Sandro  
Cognome : De Cecco  
Luogo e data di nascita : Roma, 6 febbraio 1975  
Cittadinanze : Francese e Italiana  
Stato Civile : Coniugato, due figli  
Obblighi di leva : Assolti, servizio Civile  
Indirizzo personale : 13 rue Delaunoy, 77000 Melun, France  
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Telefono : +33(0)144274754 (ufficio), +33(0)622661211 (cellulare)  
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## Posizione attuale :

- posizione permanente di **Maitre de Conférence** al "VI échelon classe normale" con 7 anni di servizio presso l'Université Paris Diderot - Paris 7; e **membre junior de l'Institut Universitaire de France** per 5 anni dal 1 ottobre 2014.

## Carriera accademica e titoli :

- dal 1 ottobre 2014 al 2019: vincitore concorso nazionale e nomina a **Membre junior de l'Institut Universitaire de France** (iuf.amue.fr) : riduzione dei 2/3 del carico didattico, salario premiale (P.E.S.), e dotazione personale di ricerca per 5 anni accademici.
- fine 2014 - inizio 2015, discussion prevista dell' **HDR** (Habilitation à Diriger les Recherches), titolo: *"Probing the Standard Model of Electro-Weak interactions at the hadronic colliders, from precision measurements of CP violation to the Higgs boson discovery"* in preparazione, da discutere entro inizio 2015.
- 2013, conseguimento dell'**Abilitazione Scientifica Nazionale** (ASN 2012) alle funzioni di professore di seconda fascia nel settore scientifico disciplinare **02/A1**.
- Luglio 2013, titolo di **A.D.T.** (Authorisation à diriger une Thèse) l'Université Paris Diderot.
- Ottobre 2010, vincitore del bando nazionale di valutazione per l'attribuzione della **Prime d'Excellence Scientifique**, P.E.S. (scientific excellence grant) di durata quadriennale 2011-2014, bandito dal "Ministere de l'Enseignement Supérieur et de la Recherche".
- 1 luglio 2010, **Reclassement** al "5ème échelon du corps des Maitres de Conférences classe normale - reconstruction de carrière. Ricostruzione di carriera equivalente ad 8 anni riconosciuti validi come servizi pre-ruolo (dottorato e post-docs): avanzamento al 5 livello su 9. Attualmente al 6 livello dal 1 maggio 2013.
- 1 ottobre 2008, **Titularisation** (Conferma in ruolo) come " **Maitre de Conférence** - titulaire - classe normale - 2ème échelon".
- 1 ottobre 2007, **Prise de fonction** (Presa di servizio) come " **Maitre de Conférence** - stagiaire - classe normale - 1er échelon".

- Maggio 2007, vincitore del concorso a posizione di **Maitre de Conférence** nell'area scientifico disciplinare **Section 29 - constituants élémentaires** con profilo "Physique expérimentale des Hautes Energies", bandito dall'Università Paris Diderot - Paris 7.
- Febbraio 2007, **Qualification aux fonctions de Maitre de Conférences**, abilitazione nazionale francese per i ruoli universitari, CNU (Conseil National des Universités), **Section 29 - Constituants Elementaires**.
- Gennaio 2003, "**Dottorato di ricerca in Fisica**", Università di Roma "La Sapienza" titolo della tesi: "*Measurement of relative branching fractions for  $D^0$  meson Cabibbo suppressed hadronic decays, from the CDF secondary vertex trigger sample at the Tevatron collider.*", Tutore: Prof. Carlo Dionisi.
- Maggio 2000, **Abilitazione all'insegnamento** nelle scuole secondarie superiori per la classe di concorso **A038**, Fisica.
- 30 aprile 1999, **Laurea in Fisica** Università di Roma "La Sapienza", votazione 110/110, tesi: *Studio della risoluzione e del tracciamento con le camere a drift per lo spettrometro a muoni dell'esperimento ATLAS*, relatore Prof. Paolo Bagnaia, correlatore Dott. Ludovico Pontecorvo;
- 1993 **Diploma di maturita'** scientifica, Liceo Scientifico Statale "Plinio Seniore", Roma.

## Percorso scientifico e professionale:

- dal 1 ottobre 2014 al 2019: **Membre junior de l'Institut Universitaire de France** (iuf.amue.fr) con conseguente riduzione dei 2/3 del carico didattico (a 64 ore/anno), salario premiale (P.E.S. di 6keuro/anno), e dotazione personale di ricerca (15keuro/anno) il tutto per 5 anni accademici rimanendo in ruolo come Maitre de Conference presso l'Université de Paris Diderot - Paris 7 in "délégation" presso l'IUF.
- dal 1 Ottobre 2007 ad oggi, servizio nel ruolo di "**Maitre de Conférence**", posizione permanente di "Enseignant-Chercheur" universitario presso l'Université de Paris Diderot - Paris 7 e presso il Laboratoire de Physique Nucleaire et des Hautes Energies (LPNHE) dell'IN2P3/CNRS. **Incarico statutario di insegnamento**: 192 ore/anno di didattica frontale. **Ricerca**: membro della collaborazione **ATLAS** nel gruppo di Parigi-LPNHE e **responsabile locale** del gruppo della collaborazione **CDF** Fermilab dell' IN2P3 (fino al 2011).
- Luglio 2007, vincitore della cattedra di fisica presso l'istituto ITIS Enrico Fermi di Roma. Presa di servizio come professore di ruolo il 24 luglio 2007 e dimissioni il 1 settembre 2007.
- Ottobre 2005 - Settembre 2007, contratto di collaborazione ad attivita' di ricerca presso l'INFN sezione di Roma 1 con **Assegno di ricerca** biennale dal titolo: "Ricerca delle oscillazioni del  $B_s$  con l'esperimento CDF al Tevatron".
- Settembre 2005 - Agosto 2006 rinnovo annuale dell'incarico di "**Guest Scientist**" presso il **Fermilab** National Accelerator Laboratory, Particle Physics Division, CDF experiment.
- Agosto 2004 - Agosto 2005, incarico annuale come "**Guest Scientist**" presso il **Fermilab** National Accelerator Laboratory, Particle Physics Division, CDF experiment, con responsabilita' sul rivelatore a tempo di volo di CDF e sull'analisi dei canali di decadimento adronici nel gruppo di fisica del B della collaborazione.
- Ottobre 2003 - Settembre 2005, contratto di collaborazione ad attivita' di ricerca presso l'INFN sezione di Roma 1 con **Assegno di ricerca** biennale dal titolo: "Analisi dei decadimenti totalmente adronicidel B e del D con l'esperimento CDF al Tevatron di Fermilab".

- da novembre 2000, membro collaborazione CDF al Tevatron di Fermilab, associato come dottorando al gruppo CDF della sezione di Roma dell'INFN.
- Novembre 1999 - Ottobre 2002, **borsista del Dottorato di Ricerca in Fisica (XV ciclo)**, Università di Roma "La Sapienza";
- febbraio-dicembre 1999 **Servizio Civile** prestato presso il museo della Galleria Borghese, Sovrintendenza ai Beni storico artistici di Roma e del Lazio.
- dicembre 1997-aprile 1999 **Laureando** nel gruppo Atlas di Roma 1, associazione INFN sezione di Roma. Partecipazione alla messa a punto ed alla presa dati di test beam delle camere MDT di Atlas sulla linea H8 dell'SPS.
- giugno-settembre 1998 vincitore borsa di **"CERN Summer Student"** a Ginevra nell'ambito della collaborazione responsabile per lo spettrometro a muoni dell'esperimento Atlas, supervisore Prof. Chris Fabian.

## Leadership scientifica e responsabilità:

- **Coordinatore di progetto di ricerca** quadriennale 2014-2018 " *Hbb+ttH@LHC : couplages du boson de Higgs aux quarks top et bottom* " vincitore del bando nazionale dell'**Agence Nationale de la Recherche (ANR)** : [agence-nationale-recherche.fr](http://agence-nationale-recherche.fr) ), unico progetto di fisica delle alte energie selezionato nel 2014; altri laboratori membri del progetto: CEA Saclay, CPPM Marseille, LAL Orsay.
- da dicembre 2013, rappresentante dell' LPNHE e membro del board della **FRIF** (Fédération de Recherche sur les Interactions Fondamentales), network of experimental and theoretical laboratories on high energy physics in the Paris region, board chair M. Cacciari.
- da giugno 2010 a sett. 2013, **Directeur de Thèse** (Thesis supervisor) di O. Davignon, vincitore di borsa ministeriale di dottorato, Ecole doctorale 517 "Particules, Noyaux et Cosmos" Paris 6, 7, 11 et Ecole Normale Supérieure, directeurs P. Schewmmling et A. Stocchi. Titolo della tesi " *Search of the Standard Model Higgs boson produced in the Vector Boson Fusion process and decaying to two photons in the Atlas experiment at LHC* ", conseguita a settembre 2013 da O. Davignon attualmente post doc all'Ecole Polytechnique Paris - laboratorio LLR, esperimento CMS.
- Aprile 2013, membro del comitato di organizzazione delle " **Journées Collisionneur Linéaire** ", french workshop on ILC physics, accelerator and detector R&D, Lyon France.
- da gennaio 2012 a aprile 2013, **Chair** del comitato organizzatore e ideatore della conferenza nazionale: " **LHC France 2013, 1st French meeting on high energy physics at the LHC** ", 2-6 April 2013, Annecy. Il comitato composto di 20 membri rappresentanti tutti gli esperimenti LHC cui partecipano i laboratori francesi dell'IN2P3-CNRS e IRFU-CEA. La conferenza con circa 250 partecipanti è stato il primo incontro nazionale di questa importanza nel campo. Sono stati presentati e discussi i risultati della prima fase di presa dati di LHC, con tematiche dalla fisica dell'Higgs ai quark pesanti, la fisica elettro-debole, la QCD e il quark gluon plasma e gli upgrades dei rivelatori.
- da marzo 2011, **Deputy-chair** del **Local Organizing Committee** della conferenza **HCP 2011 - Hadron Collider Physics Symposium** Paris, France 14-18 novembre 2011. Editor dei proceedings.
- da dicembre 2010 - dic. 2012, **Chair** del comitato **Physique ATLAS France** (IN2P3/CNRS e CEA). Comitato nazionale di coordinamento delle attività di analisi e di fisica dei gruppi francesi della collaborazione ATLAS presso l'LHC del CERN. Attività di valutazione e

definizione degli obiettivi per i contributi dei gruppi francesi; stimolo per la creazione e l'organizzazione di gruppi di analisi nazionali; commissione di valutazione delle proposte di tesi a livello nazionale; organizzatore e Chairman del Workshop annuale ATLAS-France e di riunioni mensili con i responsabili del Computing per gli esperimenti LHC presso il centro di calcolo nazionale CC-IN2P3 di Lione.

- dal 2010, **Responsabile gruppo CDF - LPNHE Paris**. Unico gruppo francese (IN2P3-CNRS) della collaborazione CDF, formato da un PhD student, due post-doc associati, un visiting scientist e una dirigente di ricerca CNRS fuori ruolo (emeritat). Attività scientifica su due linee principali: misura della fase del sistema di Bs neutri e ricerca del bosone di Higgs carico oltre il modello standard.
- Novembre 2009, **Rapporteur Scientifique** (Referee) per il Consiglio Scientifico del LPNHE per tutte le attività nel campo della fisica del Flavor (Babar, LHCb, CDF, SuperB).
- dal 2009 al 2012, **co-responsabile coordinatore** del nuovo **Master II** (laurea magistrale) "Ingénierie Physique des Energies" Master IPE coabilitato dal dipartimento di fisica dell'Università di Paris 7 D. Diderot e dall'INSTN-CEA (Institut National de Sciences et Techniques Nucléaires - Commissariat à l'Energie Atomique) formazione di Master di secondo livello diplomante in ingegneria nel campo della produzione e gestione delle diverse forme di energia; specializzazioni in: nucleare, eolico, fotovoltaico.
- Gennaio 2005 - Gennaio 2007, **Conveener** del gruppo di analisi di fisica "**Rare B Decays and CP Violation**" della collaborazione CDF a Fermilab. Nel mandato ho seguito e potato a pubblicazione molti risultati importanti di CDF nell'analisi di fisica del flavor, nella violazione della simmetria CP e nella ricerca di flavor changing neutral currents (FCNC) nei decadimenti rari, e nelle proprietà dei mesoni con beauty e charm; le principali analisi sono state: CPV nei charmless B decays  $B \rightarrow hh'$  ( $h, h' = \pi, K$ ), misura della differenza di vita media  $\Delta\Gamma_s/\Gamma_s$  nel  $B_s \rightarrow J/\psi\phi$  e la ricerca del decadimento FCNC  $B_{d,s} \rightarrow \mu\mu$ .
- Settembre 2004 - Agosto 2006, **responsabile on call** per il sistema di **alte tensioni** del rivelatore di tempo di volo **TOF** dell'esperimento CDF a Fermilab.

## Insegnamento:

- dal 2011 ad oggi : titolare del corso di **Physique subatomique avancée** (60 ore) Master - magistère en Physique, Université Paris Diderot - Paris 7.
- dal 2011 ad oggi : titolare del corso di **"Physique"** (60 ore) Richiami di fisica generale, relatività ristretta e introduzione alla meccanica quantistica, per il quarto-quinto anno di corso "Master 1 & 2 LOPHISS, Logique, Philosophie et Histoire des Sciences", secondo semestre, dell'Università *Paris Diderot - Paris 7* e dell'*Ecole Normale Supérieure*.
- dal 2011 al 2013: Lezioni e laboratori di **"Electromagnetisme"** (60 ore), per il secondo anno di corso "Licence 2 de Physique", secondo semestre, presso l' "*UFR de Physique*" dell'Università di "*Paris 7 D. Diderot*".
- dal 2011 al 2013: titolare del corso di **"Introduction à la Physique Subatomique: noyaux et particules"** (30 ore), per il secondo anno di corso "Licence 2 de Physique", secondo semestre, presso l' "*UFR de Physique*" dell'Università di "*Paris 7 D. Diderot*".
- Dall'Anno Accademico 2009/10, membro del **Jury du Master 1 - Magistère de Physique**, collegio dei docenti del Master del dipartimento di Fisica dell'Università Paris Diderot, per la fisica subatomica.

- Anno Accademico 2007/08 al 2011/12: Lezioni di “**Physique Subatomique**” (24 ore), sezioni d’urto dei processi subnucleari, modelli nucleari, interazioni deboli, scoperta delle particelle elementari, modello a quarks, per il quarto anno di corso “Master 1 - Magistère de Physique”, primo semestre, presso l’ “*UFR de Physique*” dell’Università di “*Paris 7 D. Diderot*”.
- Anno Accademico 2007/08 al 2011/12: Lezioni di “**Physique Subatomique avancée**” (24 ore), fisica nucleare, simmetrie discrete, violazione di CP, fisica delle interazioni elettrodeboli, per il quarto anno di corso “Master 1 - Magistère de Physique”, secondo semestre, presso l’ “*UFR de Physique*” dell’Università di “*Paris 7 D. Diderot*”.
- Anno Accademico 2009 al 2011/12: Master 2 “Ingenierie Physique des Energies”. Organizzazione del Master e responsabilità di **docente coordinatore** del modulo di “Nucleaire II, cycle du combustible et conduite des reacteurs”, pool di 5 insegnanti. Responsabile della specializzazione in energia nucleare.
- Anno Accademico 2007 al 2010: Lezioni di “**Travaux pratiques en laboratoire de Mecanique**” (96 ore) per il primo anno di corso “Licence 1 de Physique”, primo semestre, presso l’ “*UFR de Physique*” dell’Università di “*Paris 7 D. Diderot*”.
- Anno Accademico 2001-02: Lezioni di supporto alla didattica e laboratorio (30 ore) per il corso di **Esperimentazioni di fisica generale I** tenute presso il Dipartimento di Fisica dell’Università di Roma “La Sapienza”.
- Anno Accademico 2000-01: Lezioni di supporto alla didattica (30 ore) per il corso di **Fisica Generale II** tenute presso il Dipartimento di Chimica dell’Università di Roma “La Sapienza”.

## Relatore di tesi di dottorato, Master e tutorato di stages :

- Febbraio - luglio. 2014, Supervisor di **Stage de Master 2**, I. Kucher, Ecole Polytechnique Palaiseau “*Search for Higgs boson decaying in b quarks pairs and commissioning of the Atlas FTK online tracking*”.
- da giugno 2010 a sett. 2013, **Directeur de Thèse** (Thesis supervisor) di O. Davignon, vincitore di borsa ministeriale di dottorato, Ecole doctorale 517 “Particules, Noyaux et Cosmos” Paris 6, 7, 11 et Ecole Normale Supérieure, directeurs P. Schewmling et A. Stocchi. Argomento della tesi “*Search of the Standard Model Higgs boson produced in the Vector Boson Fusion process and decaying to two photons in the Atlas experiment at LHC*”.
- Aprile-giugno. 2013, Supervisor di **Stage de L3** (tesi di laurea triennale) N. Lombard, Licence 3, Magistère de Physique de Paris 7, topic: “*Multivariate analysis of the Higgs to di-photon inclusive sample with the Atlas experiment*”
- Maggio-Luglio 2010, **Supervisor di Stage di Master 2** (stage di ricerca per il quinto anno di studi) di O. Davignon, del Master NPAC (Noyaux Particules Astrophysique et Cosmologie) (P6, P7, P11, Ecole Normale) sul tema: “*Performances of the photon reconstruction with the first LHC data collected by the Atlas detector*”
- Luglio-Settembre 2009: **Supervisor di CERN Summer Student** di N. Meric, sul tema “*Study of the gamma-Jet events for Jet energy scale calibration with the Atlas detector*”.
- Maggio-Luglio 2009 **Supervisor di Stage de Master 1** (stage di ricerca per il quarto anno di studi) di due studenti (S. Akar e O. Davignon) del Master en physique fondamentale de l’université Pierre et Marie Curie - Paris 6; sul tema “*Leading order generation of Vector Boson Fusion Higgs Boson production with CompHep*”.

- da Aprile 2008-gennaio 2009: **Relatore** di tesi di laurea di A. Sanchez, studente di Master, **borsista programma HELEN** dell'Universitat de Los Andes, Merida, Venezuela. Inquadramento del lavoro di tesi specialistica nell'ambito dell'esperimento ATLAS, gruppo di Paris-LPNHE, con tema *"Reconstruction and calibration of hadronic Jets with novel Jet algorithms and preparation to early QCD measurements with the ATLAS detector at the LHC"*.
- Agosto-Settembre 2006: Tutore di **Fermilab Summer Student** sul tema *"Ottimizzazione della selezione del trigger SVT dopo l'upgrade"*.
- Agosto-Settembre 2005: Tutore di **Fermilab Summer Student** sul tema *"Studio di fattibilità di algoritmo di Opposite Side b-barion Flavour Tagging"*.

## Presentazioni a Conferenze:

- Aprile 2013, *Standard Model at LHC conference SM@LHC2013* Freiburg, Germany. Talk: **Higgs to di-photon channel in Atlas and CMS**
- Marzo 2013, *Rencontres de physique de Moriond - ElectroWeak*, La Thuile, Italy. Talk: **Heavy Flavor physics at Tevatron**
- Agosto 2011 *15th Lomonosov Conference on Elementary Particle Physics*, Moscow State University, Moscow, Russia. Talk: **B physics at Tevatron**
- Ottobre 2010 *First ReteQuarkonii Workshop RQW2010* Nantes, France. Talk: **"Quarkonium at Tevatron"**
- Luglio 2010 *XXV QCD Workshop 2010* Montpellier, France. Talk: **"B spectroscopy at the Tevatron"**
- Giugno 2010 *BEACH 2010* Perugia, Italia. Talk: **"Heavy Flavor Properties at CDF"**.
- Marzo 2008, *IFAE 2008, Incontri di fisica delle Alte Energie* Bologna, Italia; talk: **"Oscillazioni e Violazione di CP del  $B_s$ "**;
- Luglio 2007, *European Physics Society meeting EPS 07* Manchester, UK, talk: **"b-jet production at the Tevatron"**;
- Maggio 2007, *CDF collaboration meeting* Jussieu, Paris, France, talk: **"High  $P_T$  b-tagging at CDF"**
- Febbraio 2007, *Workshop IV Incontro sulla fisica del B* Accademia delle Scienze, Bologna, Italy; two talks: **"Time dependent CP asymmetries at Tevatron"** and **"Rare decays at Tevatron"**;
- Maggio 2006, *Flavour in the LHC Era, Workshop* CERN, Geneve; given talk on: **"Measurement of  $B_s$  Oscillations at CDF"**;
- Febbraio 2006, *DIF06 - International Workshop on Discoveries in Flavor Physics at e+e- Colliders* Frascati, Italy; talk on: **"Perspectives for Charm Physics at Hadron Machines"**;
- Giugno 2005, *BEAUTY 2005, 10th International Conference on B-Physics at Hadron Machines* Assisi, Italy; talk: **"CDF Hot Topics"**;
- Aprile 2005, *IFAE 2005, Incontri di fisica delle Alte Energie*, Catania, Italy; talk: **"Ricerca di oscillazioni del mesone  $B_s$  a CDF"**;

- Agosto 2004, *V reconcontres de Physique du Vietnam, New views on Particle Physics*, Hanoi, Vietnam; talk: “**Charm Production Cross Section and Charm Physics at the Tevatron**”
- Aprile 2003, *IFAE 2003, Incontri di fisica delle Alte Energie*, Lecce, Italy; talk: “**Fisica del Charm a CDF**”.
- Ottobre 2002, *HCP02, Hadron Collider Physics*, Karlsruhe, Germany; talk: “**B masses, lifetimes, prospects for B-oscillations and CP-violation at CDF including new charm results**”.
- Agosto 2002, *XXX SLAC Summer Institute of Physics, “The secrets of the B meson*”, Stanford, CA, USA; “**Charm Physics at CDF**” presentata nella poster session.

### Seminari su invito :

- Ottobre 2010, seminario “**Photon identification at LHC: first results and prospects for SM Higgs search in two photon final state**” Università di Roma “La Sapienza”, Dipartimento di Fisica, <http://agenda.infn.it/conferenceDisplay.py?confId=2879>.
- Gennaio 2010, seminario “**Tagging b-Jets at collider, a tool for discoveries**” invitato dal LIP e Politecnico, Lisboa Portugal.
- Aprile 2009, ciclo di seminari “The Large Hadron Collider project” in **Venezuela, Universidad Central de Caracas** e **Universidad de Los Andes** in Merida. Supporto del programma HELEN in vista della creazione in Venezuela di un gruppo di fisica delle alte energie sperimentale e suo ingresso nella collaborazione Atlas.
- da Gennaio 2008 - 2009, Organizzatore del ciclo di Seminari “**Joint Experimental and Theoretical Meetings**” su tematiche relative alla fisica di LHC, tra il “*Laboratoire de Physique Nucleaire et des Hautes Energies*” sperimentale ed il “*Laboratoire de Physique Theorique de Paris*” teorico.
- 23 Maggio 2007, **CERN**, Genève CH, ATLAS coll., Invited at **ATLAS Standard Model meeting**, talk: “*CDF studies of W, Z + Heavy Flavor Jets*”.
- 31 Maggio 2006, **CERN**, Genève CH, ATLAS coll., Invited at **ATLAS Trigger & Physics week**, talk: “*Bs mixing measurement in CDF*”.
- 28 Giugno 2005, **CERN**, Genève CH, LHC-b coll., Invited at **LHC-B General Meeting**, two talks: “*Search for  $B_s$  oscillations at CDF*” and “*CDF experience with the B flavour tagging algorithms*”.
- 7 Aprile 2005, University of **Roma “Tre”**, seminar: “*Ricerca delle oscillazioni di Flavour del mesone  $B_s$  con l’esperimento CDF*”
- 4 Aprile 2005, University of **Roma “La Sapienza”**, seminar: “*Ricerca delle oscillazioni di Flavour del mesone  $B_s$  con l’esperimento CDF*”.
- 11 Giugno 2004, University of **Roma “La Sapienza”**, seminar: “*Physics of the neutral  $B_s$  mesons at CDF, recent results and perspectives*”.



## Outreach :

- 29 sett. 2014, conferenza **"Le LHC et le boson de Higgs"** presso il Comité d'entreprise della sede centrale di THALES GROUP, Elancour France.
- 4 Oct. 2013, Outreach conference **"La découverte du boson de Higgs"** in the *"Festival des deux Infinis"*, Association Francaise d'Astronomie, Paris France.
- 13 Jun. 2013, Intervista nel giornale svizzero **"Le Temps"** de Genève: **"ILC l'accélérateur de particules du Futur"**, co-intervistato con Lynn Evans.
- Aprile 2013, organizzatore della mostra **"Le tunnel LHC interactif "** presso l' "Espace d'expositions - La Turbine", 28 Mar.- 8 Apr. 2013, Annecy, France.
- Settembre 2012, conferenza dal titolo *"Boson de Higgs, fin de la traque?"* al **Muse des arts et mtiers (CNAM)** Paris, France.
- giugno 2012, membro del jury del **"Prix de La Recherche 2012"** per la fisica delle alte energie e la cosmologia. Premio nazionale annuale organizzato dalla redazione del mensile *"La Recherche"* per a premiare i migliori team di ricerca per tutte le discipline scientifiche.
- Collaborazione con il mensile **"La Recherche"**, pubblicazione di un articolo e dossier dal titolo *"Ou se cache le boson de Higgs"* per il numero di luglio 2012.
- 2007-2010, membro del comitato di organizzazione **"Fête de la Science"** Laboratoire des deux Infinis- LPNHE. Campus de Jussieu, Universié Pierre et Marie Curie, editions novembre 2008 et 2009.
- Aprile-Giugno 1997, incarico per l'assistenza tecnico-scientifica e per le visite guidate alla manifestazione organizzata dal Comune di Roma e dall'INFN *"Quark 2000 - La fisica fondamentale italiana e le sfide del nuovo millennio"* - Palazzo delle esposizioni di Roma.

## Pubblicazioni:

Sintesi delle pubblicazioni di cui sono autore:

- **643 articoli su rivista** con comitato di lettura: risultati di fisica delle collaborazioni CDF e Atlas.
- **44 note interne** della collaboration CDF: fisica del charm, Bs mixing, decadimenti rare, b-tagging, Z+jets, time-of-flight.
- **20 note interne** della collaborazione Atlas: camere MDT dello spettrometro a muoni, trigger di fotoni, ricerca dell'Higgs in due fotoni.
- una decina di **atti di conferenze**.
- Indici bibliometrici al 30 settembre 2014 :

Età accademica : 13 anni

**Numero totale di pubblicazioni : 643** (ISI Web of Science)

**Fattore H : 56** (ISI Web of Science)

**Numero totale di citazioni : 16898** (ISI Web of Science)

## Pubblicazioni con significativo apporto personale :

- 1. **"Measurement of prompt charm meson production cross sections in  $p(\bar{p})$  collisions at  $\sqrt{s}=1.96$  TeV.** Physical Review Letters 91, (Dec, 2003).
- 2. **"A Time-of-Flight detector in CDF-II.** Nuclear Instruments & Methods in Physics Research Section a-Accelerators Spectrometers Detectors and Associated Equipment 518, 605 (Feb, 2004).
- 3. **"Observation of the narrow state  $X(3872) \rightarrow J/\psi \pi^+\pi^-$  in  $p(\bar{p})$  collisions at  $\sqrt{s}=1.96$  TeV.** Physical Review Letters 93, (Aug, 2004).
- 4. **"Evidence for  $B(s)(0) \rightarrow \phi \phi$  decay and measurements of branching ratio and  $A(\text{CP})$  for  $B(+)\rightarrow \phi K(+)$ .** Physical Review Letters 95, (Jul, 2005).
- 5. **"Measurement of partial widths and search for direct CP violation in  $D(0)$  meson decays to  $K(-)K(+)$  and  $\pi(-)\pi(+)$ .** Physical Review Letters 94, (Apr, 2005).
- 6. **"Measurement of the  $J/\psi$  meson and b-hadron production cross sections in  $p(\bar{p})$  collisions at  $\sqrt{s}=1.96$  TeV.** Physical Review D 71, (Feb, 2005).
- 7. **"Measurement of bottom-quark hadron masses in exclusive  $J/\psi$  decays with the CDF detector.** Physical Review Letters 96, (May, 2006).
- 8. **"Observation of  $B(s)(0)B(s)(0)$  oscillations.** Physical Review Letters 97, (Dec, 2006).
- 9. **"Search for a neutral Higgs boson decaying to a W boson pair in  $p(\bar{p})$  collisions at  $\sqrt{s}=1.96$  TeV.** Physical Review Letters 97, (Aug, 2006).
- 10. **"Measurements of inclusive W and Z cross sections in  $p(\bar{p})$  collisions at  $\sqrt{s}=1.96$  TeV.** Journal of Physics G-Nuclear and Particle Physics 34, 2457 (Dec, 2007).
- 11. **"First flavor-tagged determination of bounds on mixing-induced CP violation in  $B(s)(0) \rightarrow J/\psi \phi$  decays.** Physical Review Letters 100, (Apr, 2008).
- 12. **"Search for  $B(s)(0) \rightarrow \mu^+\mu^-$  and  $B(0) \rightarrow \mu^+\mu^-$  Decays with 2 fb<sup>-1</sup> of  $p(\bar{p})$  collisions.** Physical Review Letters 100, (Mar, 2008).
- 13. **"Evidence for a Narrow Near-Threshold Structure in the  $J/\psi \phi$  Mass Spectrum in  $B(+)\rightarrow J/\psi \phi K(+)$  Decays.** Physical Review Letters 102, (Jun, 2009).
- 14. **"Charged-particle multiplicities in pp interactions at  $\sqrt{s}=900$  GeV measured with the ATLAS detector at the LHC ATLAS Collaboration.** Physics Letters B 688, 21 (Apr, 2010).
- 15. **"Combination of Tevatron Searches for the Standard Model Higgs Boson in the  $W(+)W(-)$  Decay Mode.** Physical Review Letters 104, (Feb, 2010).
- 16. **"Performance of the ATLAS detector using first collision data.** Journal of High Energy Physics, (Sep, 2010).
- 17. **"Measurement of the inclusive isolated prompt photon cross-section in pp collisions at  $\sqrt{s}=7$  TeV using 35 pb<sup>-1</sup> of ATLAS data.** Physics Letters B 706, 150 (Dec, 2011).
- 18. **"Search for the Standard Model Higgs boson in the two photon decay channel with the ATLAS detector at the LHC.** Physics Letters B 705, 452 (Nov, 2011).
- 19. **"Measurement of the isolated di-photon cross section in pp collisions at  $\sqrt{s}=7$  TeV with the ATLAS detector.** Physical Review D 85, (Jan, 2012).
- 20. **"Observation of a new particle in the search for the Standard Model Higgs boson with the ATLAS detector at the LHC".** Phys. Letters B, 716 (Sep, 2012).
- 21. **"Measurements of Higgs boson production and couplings in diboson final states with the ATLAS detector at the LHC".** Phys. Letters B, 726 (7 Oct, 2013).

## Principali risultati ottenuti :

La mia attività scientifica si sviluppa nell'ambito della fisica sperimentale delle alte energie. Negli ultimi anni si è focalizzata sulla fisica del bosone di Higgs nell'esperimento Atlas a LHC. Ho contribuito alla sua scoperta ed allo studio delle sue proprietà attraverso il canale di decadimento in due fotoni ed in particolare ho condotto lo studio della sua produzione attraverso il processo di fusione di bosoni vettori. Ho contribuito allo studio delle performances di ricostruzione e trigger dei fotoni in Atlas ed alle operazioni del rivelatore come Atlas shift leader nel run1 di LHC. Attualmente preparo la ricerca del decadimento dell'Higgs in coppie di quarks b, e dello studio dell'accoppiamento di Yukawa al top per il run2 di LHC. Precedentemente (1999-2011), come membro della collaborazione CDF al Tevatron di Fermilab, mi sono occupato di fisica del flavor e violazione della simmetria CP ricoprendo il ruolo di convenor di B decays e CP violation. Il dettaglio dei principali risultati e attività in ordine cronologico :

- Detector R&D and test beams of gaseous drift chambers (1998-99) : SPS test beams and calibration algorithm for muon drift tubes of Atlas (Laurea), non linear Argon-CO2 mixture successfully tested.
- Charm physics and CP violation at CDF (2000-2003) : initiating charm physics program with the Silicon Vertex Trigger data in CDF collaboration (2000-03, PhD thesis), CPV in charm sector and charm cross section.
- B physics : rare B decays, Bs flavor mixing, direct CP violation, search for FCNC decays at CDF. (2003-2007).
- Hadronic Bs decays : new mode discovered ( $B_s \rightarrow \Phi\Phi$ ) in 2004 and many rare decays analysis.
- CP Violation convenor for CDF collaboration (2004-06)
- Bs mixing oscillation frequency precise measurement and observation in 2006
- b-jet tagging advanced techniques for Z+bjets and H to bbar at CDF (2006-2007) : development of novel Neural Network continuous b-tagging at CDF.
- Photon reconstruction and trigger in the Atlas experiment at LHC : LAr ECAL (2008-2011), photon trigger performances data driven methods in Atlas and first prompt photon LHC results (2011).
- Higgs boson physics, Higgs search into di-photon decay channel : strong contribution to evidence (2011) and discovery (2012)
- Higgs production modes and couplings : evidence for Vector Boson Fusion Higgs production (Moriond 2013).
- Search for the Higgs boson decaying to b quark pairs in Atlas. (2014)

Parigi, 1 ottobre 2014

Sandro De Cecco



Roma, 7 ottobre 2014

Prof. Matilde Mastrangelo  
Direttrice  
Istituto Italiano di Studi Orientali  
SEDE

**Proposta di chiamata diretta di una studiosa straniera: Neguin YAVARI (New York).**

Gentile Direttrice,

ti scriviamo per sottoporre alla tua attenzione la presente proposta di chiamata diretta di una studiosa straniera – stabilmente impegnata all'estero in attività di ricerca e insegnamento a livello universitario da oltre un triennio – ai sensi dell'art. 11 (comma 11.1, lettera a) del “Regolamento per l'assegnazione delle risorse, per la chiamata dei professori di I e II fascia e per il reclutamento dei ricercatori a tempo determinato tipologia ‘B’” (DR n. 1506/2014) e della nota del Rettore n. 0049554 del 1° settembre 2014.

La proposta riguarda **Negin YAVARI**, Assistant Professor, Department of History, The New School, New York (USA) [v. allegato 1] e Adjunct Associate Research Scholar, Middle East Institute, Columbia University, New York (USA).

La professoressa Yavari, che ci ha confermato la sua disponibilità di massima a essere chiamata alla Sapienza, contribuirebbe validamente alla ricerca e alla didattica del dipartimento in ambito iranistico a tutti i livelli, in particolare nel settore L-OR/14.

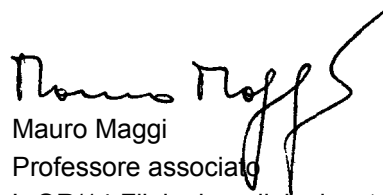
Ai fini della proposta di chiamata della professoressa Yavari:

- 1) alleghiamo il **curriculum vitae** della candidata (v. allegato 2);
- 2) proponiamo che la candidata sia chiamata nel ruolo di **professore associato**;
- 3) abbiamo verificato che la candidata **supera le soglie ANVUR** per i professori associati;
- 4) specifichiamo che si tratta di “**chiamata diretta di studiosi stranieri**” secondo l'art. 1, comma 9, della Legge n. 230/2005 e successive integrazioni e modifiche.

**Mauro Maggi**  
Professore associato di Filologia, religioni e storia dell'Iran (L-OR/14)  
Università degli studi di Roma La Sapienza  
Istituto italiano di studi orientali – ISO  
Via Principe Amedeo 182/b, 00185 Roma  
T (+39) 06 45569210 (interno 374-10) F (+39) 06 49385915  
mauro.maggi@uniroma1.it  
<https://sites.google.com/a/uniroma1.it/mauromaggi>



Nella speranza che tu voglia accogliere favorevolmente la presente proposta e appoggiarla nelle sedi preposte, ti inviamo i più cordiali saluti e ringraziamenti.



Mauro Maggi  
Professore associato  
L-OR/14 Filologia, religioni e storia dell'Iran



Paola Orsatti  
Professore associato  
L-OR/15 Lingua e letteratura persiana

# THE NEW SCHOOL

A UNIVERSITY

Department of History, Eugene Lang College The New School for Liberal Arts  
 Committee on Historical Studies, The New School for Social Research  
 80 Fifth Ave, 5th Floor New York, NY 10011

May 23, 2014

To Whom It May Concern:

I am writing to confirm that Professor Neguin Yavari has been a full-time Assistant Professor of History and Humanities at the New School since Fall 2006. Please find below a list of all the classes she has taught here.

If you require any further information, please do not hesitate to ask.

Yours faithfully,



Cypriano Stephenson  
 Senior Secretary – Lang College Dean's Office  
 Departments of History and Literary Studies  
 80 Fifth Avenue  
 New York, NY 10011  
 E-mail: [stephec@newschool.edu](mailto:stephec@newschool.edu)  
 Phone: +1 212-229-5100 x4927

## Fall 2006

|      |      |                                   |
|------|------|-----------------------------------|
| GHIS | 5152 | Topics in Islam: History 600-1300 |
| GPOL | 6393 | Topics in Islam 600-1300          |
| LREL | 4511 | Topics in Islam: History 600-1300 |
| UREL | 2002 | Theorizing Religion               |

## Fall 2007

|      |      |                               |
|------|------|-------------------------------|
| LHIS | 2844 | History, Authority & Power    |
| NHIS | 2567 | Islamic Cultural Perspectives |

## Fall 2008

|      |      |                                  |
|------|------|----------------------------------|
| GHIS | 5119 | Iran in Revolution: 1800-Present |
| GPOL | 5119 | Iran in Revolution: 1800-Present |
| LHIS | 2844 | History, Authority & Power       |
| LHIS | 4514 | Iran in Revolution               |

## Fall 2009

|      |      |                                  |
|------|------|----------------------------------|
| GHIS | 5119 | Iran in Revolution: 1800-Present |
| GPOL | 5119 | Iran in Revolution: 1800-Present |
| LHIS | 2844 | History, Authority & Power I     |
| LHIS | 4514 | Iran in Revolution               |

## Spring 2007

|      |      |                              |
|------|------|------------------------------|
| GHIS | 5153 | Islamic Societies: 1258-1955 |
| LHIS | 4515 | Islamic Societies: 1258-1955 |
| UHUM | 2890 | Islam in the 20th Century    |

## Spring 2008

|      |      |                                 |
|------|------|---------------------------------|
| GHIS | 5153 | Politics, Religion, and Society |
| LHIS | 4503 | Islamic World: 1800-1950        |
| NHIS | 2568 | Islam in the 20th Century       |

## Spring 2009

|      |      |                              |
|------|------|------------------------------|
| GHIS | 5153 | Religion, Politics & Society |
| LHIS | 2854 | History, Authority & Power 2 |
| LHIS | 4503 | Religion, Politics & Society |

Fall 2010

GPOL 5119 Iran in Revolution: 1800-Present  
LHIS 4030 Islam in the 20th Century  
LHIS 4514 Iran in Revolution

Fall 2011

GHIS 5119 Iran in Revolution: 1800-Present  
LHIS 4514 Iran in Revolution: 1800-Present  
LNGC 1490 Democracy & Freedom

Fall 2012

GHIS 5175 Arab Revolts  
GPOL 5308 Arab Revolts  
LHIS 2844 History, Authority & Power  
LHIS 4528 Arab Revolts

Fall 2013

GHIS 5175 Arab Revolts  
GPOL 5308 Arab Revolts  
LHIS 2844 History, Authority & Power  
LHIS 4528 Arab Revolts

Spring 2011

LHIS 2854 History, Authority & Power 2  
LHIS 3031 Middle East History & Society

Spring 2012

LHIS 3031 Middle East History & Society  
LHIS 4030 Islam in the 20th Century

Spring 2013

GHIS 6990 Independent Study  
LHIS 2854 History, Authority & Power 2  
LHIS 3031 Middle East History & Society

Spring 2014

LHIS 2854 History, Authority & Power 2  
LHIS 3031 Middle East History & Society

## [ALLEGATO 2]

### NEGUIN YAVARI

#### **2006-present**

Assistant Professor of History and Humanities, Eugene Lang College, and the New School for Social Research, The New School, New York

#### **SEPTEMBER 2010- present**

Adjunct Associate Research Scholar, Middle East Institute, Columbia University, New York

#### **1999-2006**

Assistant Professor of Islam (non-tenure track), Religion Department, Columbia University, New York

#### **1996-1999**

Lecturer in History and (from November 1997), Head of Graduate Studies, Institute of Ismaili Studies, London

#### **1995-1996**

Visiting Fellow, Wolfson College and Oxford Centre for Islamic Studies, University of Oxford

#### **1992-1995**

Assistant Professor, Department of History, Institute for Cultural Studies & Research, Tehran

### **TEACHING EXPERIENCE**

#### ***The New School University***

##### *Graduate Seminars*

- Iran in Revolution, 1800 to the present
- Arab Revolts
- Islamic Societies, 650-1258
- Politics, Religion and Society: The Islamic World, 1800-1950

##### *Undergraduate Courses*

- History, Authority, and Power I: From Antiquity to the Medieval Period
- History, Authority, & Power II: Medieval to Modern
- Democracy and Freedom



- Politics and Performance in Modern Iran
- Middle East History and Society
- Islam in the 20<sup>th</sup> Century
- Theorizing Religion

### ***Columbia University***

#### *Graduate Seminars*

- Conversion (co-taught with Richard Bulliet, History Department, Columbia)
- Comparative Approaches to Morals and Manners in the Medieval World
- Narratives and Commentaries: Readings in Religious Perception
- Legal Cultures in Comparative Context
- Islamic Historiography
- Introduction to Western Religions (co-taught with David Weiss-Halivni & Robert Somerville, Religion Department, Columbia)

#### *Undergraduate Courses*

- Islam in the 20<sup>th</sup> Century
- The Qur'an
- The Legal Culture of Islam
- Orality and Textuality in Islam
- Gender, Literature and Religion: Muslim Women Write Islam
- Comparative Civilization

### **EDUCATION**

PhD, Department of History, Columbia University (1992)

MPhil, Department of History, Columbia University (1986)

BSFS, School of Foreign Service, Georgetown University (1980)

### **Publications & Research**

#### ***Books***

- *Advice for the Sultan: Prophetic Voices and Secular Politics in Medieval Islam* (Oxford University Press/Hurst Publishers, July 2014)  
<http://global.oup.com/academic/product/advice-for-the-sultan-9780199338924?cc=us&lang=en&>  
<http://www.hurstpublishers.com/book/advice-for-the-sultan/>

- *Views from the Edge: Essays in Honor of Richard W. Bulliet*, ed. Neguin Yavari & Lawrence Potter (Columbia University Press for the Middle East Institute, Columbia University, 2004)  
<http://cup.columbia.edu/book/978-0-231-13472-9/views-from-the-edge>
- "Nizam al-Mulk Remembered: A Study in Historical Representation," submitted to Columbia University Press, May 2014
- "Toward a Global History of Medieval Political Thought," co-edited with Regula Forster, Freie Universität Berlin, proceedings of conference on "Islamic Intellectual History and Political Thought," Freie Universität Berlin, November 2012; under contract with Ilex Foundation/Harvard University Press ([http://misc.illexfoundation.org/public/illex\\_series.html](http://misc.illexfoundation.org/public/illex_series.html)), manuscript due in June 2014

### Articles

- "Tafsīr and The Mythology of Islamic Fundamentalism," in *Tafsir and Islamic Intellectual History*, ed. Johanna Pink & Andreas Görke (Oxford University Press, 2013) <http://global.oup.com/academic/product/tafsir-and-islamic-intellectual-history-9780198702061?cc=us&lang=en&tab=description>; presented first in conference on "Tafsīr: The Evolution of a Genre in the Framework of Islamic Intellectual History," Institut für Islamwissenschaft, Berlin, September 2010; [www.geschkult.fu-berlin.de/e/islamwiss/tafsir-conference/Program/index.html](http://www.geschkult.fu-berlin.de/e/islamwiss/tafsir-conference/Program/index.html)
- "Medieval Iran," in *The Oxford Handbook of Iranian History*, ed. Touraj Daryaee (Oxford University Press, 2012), pp. 227-43  
<http://global.oup.com/academic/product/the-oxford-handbook-of-iranian-history-9780199732159?cc=us&lang=en&tab=toc>
- "Conceptualizing the Sunni-Shi'i Encounter in the Modern Period," a case study (5,000 words) published online by the International Relations and Security Network (ISN), Zurich, Switzerland, October 2008; [www.isn.ethz.ch](http://www.isn.ethz.ch)
- "Mirrors for Princes or a Hall of Mirrors: Nizām al-Mulk's *Siyar al-mulūk* Reconsidered," *Al-Masaq: Islam and the Medieval Mediterranean*, 20:1 (2008), pp. 47-69
- "Nizam al-Mulk," (3000 words) in *The Islamic World*, ed. Andrew Rippin (London: Routledge, 2008), pp. 351-9  
<http://www.routledge.com/books/details/9780415601917/>
- "Saljuqs," (4000 words) for The International Encyclopaedia for the Middle Ages-Online (IEMA), ed. Patrick Geary, a new supplement to the *Lexikon des*

*Mittelalters* (LexMA)-Online (Turnhout: Brepols Publishers), 2005, in Brepols Medieval Encyclopaedias <http://www.brepols.net/bme>

- "Polysemous Texts and Reductionist Readings," (pp. 324-62) in *Views from the Edge: Essays in Honor of Richard W. Bulliet*, ed. Neguin Yavari & Lawrence Potter (New York: Columbia University Press, 2004)
- "Tolerance in Islam: A Response to Joseph C. Hough," *Union Seminary Quarterly Review*, 56: 3-4, 2002, pp. 95-105
- "Islam in Central Asia," in "The Columbia Companion to Eastern Religions," ed. Robert A. F. Thurman, submitted June 2003
- "Muslim Communities in New York," in *ISIM Newsletter*, Institute for the Study of International Islam, no. 10, June 2002
- "Toward a History of Jewish-Muslim Interaction in Medieval Iran," in *Children of Esther*, ed. Houman Sarshar (New York: Iranian Jewish Oral History Project, 2002), pp. 49-60, translated as *Farzandan-e Ester* (Tehran: Nashr Karang, 2005), pp. 57-67
- "The Conversion Stories of Shaykh Abu Ishaq al-Kazaruni," in *Christianizing Peoples and Converting Individuals*, ed. Guyda Armstrong and Ian N. Wood (International Medieval Institute, volume VII), (Turnhout: Brepols, 2000), pp. 225-46  
  
Persian translation, "Shaykh-i Kazirun va giravish bi ma'naviyat-i Islami," *Bukhara*, 72: Bahman-Esfand 1388 (2010), pp. 128-55
- "Nizam al-Mulk and the Restoration of Sunnism in Eleventh Century Iran" in *Tahqiqat-i Islami*, X: 1-2, 1996, pp. 551-70
- "National, Ethnic, and Sectarian Constructs in the Iran-Iraq War" in *The Iran-Iraq War*, vol. II, ed. F. Rajaei (Gainesville: University Press of Florida, 1996), pp. 75-90
- "The "New History" and the Crisis of Representation" (in Persian) in *Goftogu: A Quarterly Review on Culture and Society*, VIII, Summer 1995, pp. 71-86
- "An Archaeology of the Legendary Life of Nizam al-Mulk" (in Persian) in *Kelk: A Review of Art and Culture*, 51-2: 1994, pp. 36-41
- "Abdallah ibn al-Zubayr as a Model of Opposition in Early Islamic Society" in the *Journal of the Middle East Studies Society at Columbia University*, II: 1, 1988, pp. 67-86

## Book Reviews

- "Review Symposium: A Discussion of Wael Hallaq. *The Impossible State: Islam, Politics, and Modernity's Moral Predicament*," *Perspectives on Politics*, 12: 2 (2014), doi:10.1017/S153759271400098X
- Ahmad al-Katib, *Tattawur al-fikr al-siyasi al-Shi'i min al-shura ila wilayat al-faqih* (Beirut: Madbouli Bookshop, 2004, 3<sup>rd</sup> printing, 2005) for *'Usur al-Wusta*, *Bulletin of the Middle East Medievalists*, forthcoming 2014
- Muzaffar Alam, *The Languages of Political Islam: India, 1200-1800* (Chicago: The University of Chicago Press, 2004) for *Journal of the American Oriental Society*, 129: 2 (2009) <http://www.jstor.org/stable/40593820>
- Josef Van Ess, *The Flowering of Muslim Theology* (Cambridge: Harvard University Press, 2005) for *American Historical Review*, 112: 2 (2007) <http://www.jstor.org/stable/4136785>
- Omid Rezai, ed., *Fihrist wa asnad-i mawqufat-i Iran*, 2 vols., and, idem., *Panjah wa yik 'arida wa hukm-i shar'i: majmu'i-i az pursish-ha wa pasukh-hayi 'ulama'-yi barjistah-yi dawra-yi Qajar dar mawdu'-i waqf, 1253 AH-1346 AH*, for *'Usur al-Wusta*, *Bulletin of the Middle East Medievalists*, X: 2, April 2005
- Daniel Brumberg, *Reinventing Khomeini: The Struggle for Reform in Iran* (Chicago: University of Chicago Press, 2001), for *Religious Studies Review*, submitted June 2003
- Hamid Algar, *Imam Abu Hamid Ghazali: An Exponent of Islam in Its Totality* (Oneonta, NY: iPi, 2001), for *Religious Studies Review*, submitted June 2003
- Donald Richards, *The Rare and Excellent History of Saladin* (Aldershot: Ashgate, 2001), for *Al-Masaq: Islam and the Medieval Mediterranean*, 16: 2 (2004), pp. 273-75.
- Hawting, Mojaddedi, and Samely, eds., *Studies in Islamic and Middle Eastern Texts and Traditions in Memory of Norman Calder* (Oxford: Oxford University Press, 2001), for *Journal of Near Eastern Studies*, 64: 2 (2005), pp. 153-55 <http://www.jstor.org/stable/10.1086/431711>
- Daud Ali, ed., *Invoking the Past: The Uses of History in South Asia* (New Delhi: Oxford University Press, 1999), for *Middle East and South Asia Folklore Bulletin*, 18:2, Spring 2002

- Ronald Inden, et.al., *Querying the Medieval: Texts and the Practice of History in South Asia* (Oxford: Oxford University Press, 1999), for *Middle East and South Asia Folklore Bulletin*, 17:3, November 2001
- Farhad Daftary, ed., *Intellectual Traditions in Islam* (London: I.B. Tauris, 2000), for *Bulletin of the Middle East Studies Association*, 35:1 (2001)

### **Encyclopedia Articles**

- "Afrāsyābids," *Encyclopaedia of Islam*, THREE. Brill Online, submitted January 2014.
- "Khomeini," and "Nizam al-Mulk," in *Princeton Encyclopedia of Islamic Political Thought*, ed. Gerhard Böwering et al. (Princeton University Press, 2012) <http://press.princeton.edu/titles/9446.html>
- "Nezām al-Molk," and "Siar al-mulūk," *Encyclopaedia Iranica*, ed. Ehsan Yarshater, submitted May 2013
- "Aḥmadīlīs." *Encyclopaedia of Islam*, THREE. Brill Online, 2012. Reference. 08 September 2012  
[http://www.encquran.brill.nl/entries/encyclopaedia-of-islam-3/ahmadilis-COM\\_23050](http://www.encquran.brill.nl/entries/encyclopaedia-of-islam-3/ahmadilis-COM_23050)
- "‘A’isha," "Fatima," and "Jinn," in *Encyclopedia of Sex and Gender*, ed. Fedwa Malti-Douglas (Detroit: Macmillan Reference USA, 2007)
- "Ayatollah Mohammad Taqi Mesbah Yazdi," in *Biographical Encyclopedia of the Modern Middle East and North Africa*, ed. Michael R. Fischbach (New York: Gale/Thomson, 2007) <http://www.encyclopedia.com/article-1G2-2830800207/mesbah-yazdi-mohammad-taqi.html>
- "Nizam al-Mulk," in *The Encyclopedia of Religion*, ed. Lindsay Jones, 2<sup>nd</sup> edition (New York: Macmillan, 2005), pp. 6639-41
- "‘Atabat," in *The Encyclopaedia of Islam and the Muslim World*, ed. Richard C. Martin (New York: Macmillan, 2003)
- "Wuthûk al-Dawla," *Encyclopaedia of Islam*, 2nd edition, Vol. IX (Leiden: Brill, 1999) [http://www.encquran.brill.nl/entries/encyclopaedia-of-islam-2/wuthuk-al-dawla-SIM\\_7928?s.num=14](http://www.encquran.brill.nl/entries/encyclopaedia-of-islam-2/wuthuk-al-dawla-SIM_7928?s.num=14)

- Twenty plus articles on modern Iran and Islam for the *Encyclopedia of the Modern Middle East*, ed. Richard Bulliet, et al. (New York: Macmillan, 1996, revised for second edition, 2003)
- “Abu’l-Hasan Khan Ilchi,” “Ahmad b. Nizam al-Mulk,” and “Yabghu” (in Persian) for the *Great Islamic Encyclopaedia*, ed. K. Bojnurdi (Tehran: Center for the Great Islamic Encyclopaedia, 1988-present)
- Seven articles for the *Encyclopaedia of Asian History*, ed. A. Embree (New York: Charles Scribners Sons, 1987)

### ***Current Writing Projects***

- “A Meta-History of Islamic Political Thought,” co-authored with Regula Forster, Freie Universität Berlin, in “Toward a History of Islamic Political Thought,” under contract with Ilex Foundation/Harvard University Press, manuscript due in June 2014
- “Sovereignty & Republicanism in Contemporary Iran as Global Intellectual History,” under contract with Hurst to submit monograph in September 2015
- “Turks and the Paradigmatic Turkmanān of Medieval Islamic Historiography,” in preparation
- “Reconstructing the Past: The “Founding” Texts of a Sufi Movement in New York City,” will be submitted to *Journal of Middle East Women’s Studies*

## **ADVISING & SERVICE**

### ***The New School***

I have served on the following committees at the New School: 1) PhD committees: principal reader for one doctoral student in the joint PhD program in History and Sociology; and eleven prospectus and/or dissertation defenses; 2) supervised 6 MA theses 2) Lang College Curriculum Committee; 3) Lang College Faculty Council; 3) Lang College Diversity Committee; 4) Committee on Undergraduate Studies, History Department; 5) Carol Breckenridge Annual Memorial Lecture in South Asian History, organizer

### ***Columbia University***

I served on twelve dissertation committees, and the following departmental/university ones: 1) Co-director, University Seminar on Religion and Human Rights in the Modern World, 2005-06; 2) Founding Member of a University Seminar on Religion and Human Rights in the Modern World 2) Director of Undergraduate Studies, 2001-02; 3) Steering Committee of Columbia

College Core Curriculum (2001-2002); 4) Modern Jewish Studies Search Committee (2000-1 & 2001-2 & 2002-3); 5) Whiting Fellowship Committee (Spring 2001); 6) Butler Library Islamic Reading Room Committee (2000); 7) Committee on Asia & the Middle East (2002-present); 6) Workshop on Civility & Nobility funded by the Mellon Foundation (2002-07)

### ***Institute of Ismaili Studies***

Duties entailed planning and implementation of the Graduate Programme in Islamic Studies and Humanities (1999 intake of 15 students) at the Institute, as well as the Khorog English Programme (1998 intake 35 students) in Khorog, Tajikistan, and the Tehran English Programme (1999 intake 8 students) in Tehran, Iran--the latter two entailed innovative multicultural approaches to the instruction of academic English-- designed to prepare students for participation in the Institute's graduate programme in Islamic studies

### ***Institute for Cultural Studies & Research***

Prepared a comparative study on memory and representation in local histories from eastern and western Iran, specifically, Khurasanian histories (*Fada'il-i Balkh* of al-Wa'iz al-Balkhi and Ibn Funduq's *Tarikh-i Bayhaq*), and several from Fars (*Majma'a al-ansab* of Muhammad Shabankara'i, *Fars-nama* of Ibn al-Balkhi, and the *Nizam al-tawarikh* of Nasir al-Din al-Baydawi)

## **REVIEW & PUBLICATIONS COMMITTEES**

- Advisor to the Editorial Board, Columbia University Press, for Middle East Studies, 2006-2010
- I have reviewed manuscripts and articles for Columbia University Press, Oxford University Press, Blackwell, Longman, History Compass, Hurst, *Journal of Near Eastern Studies* (University of Chicago), and the *Journal of Islamic Studies*.

## **Select Conference Papers**

### ***NOVEMBER 2014***

Paper on "The Poetics of Paternity in the Persian Seven-Sages Tradition," accepted for conference on "Les Sept Vizirs et les Sept Sages: vers une histoire comparée des textes," Université de Genève, 2-4 November 2014

### ***MARCH 2014***

Invited to participate in workshop on "Beyond Islamic Liberalism," St Antony's College, University of Oxford, and contributed paper entitled, "Quis custodiet ipsos custodes: Islam in the Liberal Academy"



**FEBRUARY 2014**

Invited to attend workshop on “Quotidian Life in Saljuq Iran,” Iranian Society of History, Tehran, and contribute paper on “Turkic Nomadism as Situational Construct in Islamic Historiography”

**OCTOBER 2013**

Invited by Professor Jeffrey C. Isaac, editor, *Perspectives on Politics*, to participate in a symposium on Wael Hallaq’s *The Impossible State: Islam, Politics, and Modernity’s Moral Predicament*

**SEPTEMBER 2013**

Presented paper entitled, “Popular vs. Divine Will in Comparative Perspective: Shari’a as Constitution in Iran and Saudi Arabia,” at the 42<sup>nd</sup> Annual Conference of the North American Association of Islamic and Muslim Studies, Department of Near Eastern Studies, Princeton University, 28 September 2013

<http://www.princeton.edu/nes/events/NAAIMS-Conference-Program-Final-2.pdf>

**SEPTEMBER 2013**

Presented paper entitled, “Qur’ānic Sanction and Sovereignty in Contemporary Iran,” at a conference on “Approaches to the Qur’an in Contemporary Iran,” Institute of Ismaili Studies, London, 2-4 September 2013

[https://www.academia.edu/6391970/Approaches to the Quran in Contemporary Iran](https://www.academia.edu/6391970/Approaches_to_the_Quran_in_Contemporary_Iran)

**NOVEMBER 2012**

Co-organizer with, Prof. Dr. Regula Forster (Seminar für Semitistik und Arabistik Freie Universität Berlin), of an international conference on “Islamic Intellectual History and Political Thought,” funded by the Deutsche Forschungsgemeinschaft (DFG) and Freie Universität Berlin ([http://www.geschkult.fu-berlin.de/e/semiarab/arabistik/projekte/konferenzen/MirrorsFlyer\\_ohneRand.pdf?1347695694](http://www.geschkult.fu-berlin.de/e/semiarab/arabistik/projekte/konferenzen/MirrorsFlyer_ohneRand.pdf?1347695694))

**OCTOBER 2012**

Invited to present a paper entitled “Turks and the Paradigmatic Turkmanān in Medieval Historiography” at the “International Conference on the Civilization of Iran during the Saljuq Period,” organized by the Iranian Society of History and the National Library & Archive, October 30-November 1, 2012, Tehran

**FEBRUARY 2011**

Presented a paper on “Revolution and the Authorship of History,” in a conference on “Revolution in the Arab World,” convened by the Department of Political Science, New School for Social Research

**MAY 2010**

Served as juror on the 2010 Malcolm H. Kerr Dissertation Award Committee (Social Sciences) of the Middle East Studies Association of America

**FEBRUARY 2010**



Presented paper entitled, "Political Theology as Political Jurisprudence: The Democratic Politics of Ayatollah Khomeini's *vilāyat-i faqīh*," at conference on "Legal and Political Theology in Comparative Perspective," organized by the Center for Jewish Law and Contemporary Civilization at Benjamin N. Cardozo School of Law, Yeshiva University

**DECEMBER 2008**

Participated in a Workshop Organized by the Social Science Research Council on the Department of Defense's "Minerva Initiative," charged by SSRC to draft an essay on the implications of this project for Islamic and Middle Eastern studies in US; submitted June 2009; <http://www.ssrc.org/essays/minerva/>

**NOVEMBER 2008**

Presented paper entitled, "The Scaffolding of Good Kingship in Medieval Islamic Political Thought," as part of an invited panel on "Modern Political Discourse and Medieval Arts of Persuasion: Continuities and Discontinuities," at the 2008 meeting of the Middle East Studies Association, Washington, DC

**MARCH 2008**

Presented paper entitled, "Islam, Muslims, and the Dominion of Death," as part of a conference on "The Pulse of Death Now," The Austin H. Kustcher Memorial Conference, March 29, 2008, Columbia University

**DECEMBER 2007**

Panelist, World Policy Institute panel discussion on "Iran and the 2008 Presidential Campaign," with Ambassador Peter Galbraith and Marcus Mabry (New York Times)

**DECEMBER 2007**

Discussant, New School panel discussion on "US-Iran Relations: On the Brink of Disaster," moderated by Jonathan Bach, Graduate Program in International Affairs, with Timothy Mitchell (New York University), Ervand Abrahamian (CUNY), Michael Klare (Hampshire College), Tom O'Donnell (The New School)

**OCTOBER 2007**

Discussant, lecture by Barry Flood (New York University), "Objects of Translation: Material Culture and Hindu-Muslim Encounter, 800-1250," sponsored by the South Asia Forum, The New School

**APRIL 2006**

Moderator, Panel on "Cartoons Violence: The Clash of Representations," with Lisa Anderson, Richard Bulliet, Katherine Ewing, David C. Johnston, and Brigitte Nacos, School of International Affairs, Columbia University

**MARCH 2006**

Participant in panel discussion on "*Jihad*," with Arjun Appadurai, Robin Blackburn, and Faisal Devji; New School for Social Research, New York, NY

**OCTOBER 2005**

Presented paper on: "Islam, Feminism, & Islamic Feminism," Institute for Research on Women & Gender, Columbia University

**NOVEMBER 2004**

Co-organizer with Paul Martin, Director of the Center for the Study of Human Rights, Columbia of "International Colloquium on Religion and Human Rights," Delhi, 1-5 November 2004; funded by the Rockefeller Foundation

**OCTOBER 2004**

Secured a letter of agreement and cooperation with Columbia's Center for the Study of Human Rights and the Center for Human Rights Studies, Mofid University, Qum, Iran (<http://www.mofidu.ac.ir>)

**SEPTEMBER 2002**

Presented paper entitled, "Mirrors of the Gigantic Shadows: from Malikshah to Akbar," at the Symposium on the Mughal Court, University of Pennsylvania, South Asian Studies Program

**NOVEMBER 2001**

Awarded a two-year grant by the "Muslim Communities of New York Project," sponsored by the Middle East Institute, Columbia University, funded by the Ford Foundation (<http://www.tc.columbia.edu/muslim-nyc/>)

**FEBRUARY 2000**

Presented paper on "Fundamentalism and the Modernization of Political Discourse in Iran: The Trial Notes of Ayatollah Nuri" at the Middle East Institute, Columbia University

**NOVEMBER 1998**

Presented paper on "Conversion and Text: Medieval Sufi Hagiographies on Piety, Spirituality and Conversion," at the History Department Lecture Series, School of Oriental & African Studies, University of London

**SEPTEMBER - DECEMBER 1998**

Visiting Lecturer, History Department, School of Oriental & African Studies, University of London; taught an introductory undergraduate course on Middle Eastern History

**JULY 1997**

Presented paper on "The Conversion Stories of Shaykh Abu Ishaq al-Kazaruni" at the International Medieval Conference, University of Leeds

**JANUARY-MARCH 1996**

Participated in a seminar series on Medieval Church History, organized by Professor Alexander Murray, University College, University of Oxford, and presented a paper on "The Conventional Nature of Islamic Biographies"

**JUNE 1995**

Co-organized with Dr. Didier Gazagnadou, Université Paris 8 (Saint Denis), Sociology, a one day symposium on the "The Concept of "Iran" in Modern Academic Discourse," at the Institut Français de Recherche en Teheran, Iran

*MAY 1995*

Organized, with several Iranian university professors, and participated in a public workshop on a book by Dr. S. Ziba-Kalam, Political Science Department, Tehran University, entitled *How Did We Come to Be Who We Are?*

*SEPTEMBER 1989-MAY 1990*

Graduate School of Arts & Sciences, Columbia University Traveling Fellowship  
Conducted research on my dissertation in Iran, Syria, and Turkey

*MAY 1989*

Participated in the Social Science Research Council's Dissertation Workshop on Muslim Societies, held in Kota Bharu, Malaysia

*SEPTEMBER 1987-MAY 1992*

Preceptor, Department of History, Columbia University, Taught "Contemporary Civilization", part of the core-curriculum at Columbia College

*JANUARY 1987-NOVEMBER 1989*

Editor, *Journal of the Middle East Studies Society at Columbia University*

## **Languages**

Persian, French, Arabic, Turkish (Modern and Ottoman)

## **CONTACT ADDRESS**

The New School, History Department, 80 Fifth Avenue, Room 508, New York, NY 10011

Email: [yavarin@newschool.edu](mailto:yavarin@newschool.edu), [ny71@caa.columbia.edu](mailto:ny71@caa.columbia.edu)



Roma, 7 ottobre 2014

Prof. Matilde Mastrangelo  
Direttrice  
Istituto Italiano di Studi Orientali  
SEDE

**Proposta di chiamata diretta di una studiosa straniera: Olga YASTREBOVA (San Pietroburgo).**

Gentile Direttrice,

ti scriviamo per sottoporre alla tua attenzione la presente proposta di chiamata diretta di una studiosa straniera – stabilmente impegnata all'estero in attività di ricerca e insegnamento a livello universitario da oltre un triennio – ai sensi dell'art. 11 (comma 11.1, lettera a) del “Regolamento per l'assegnazione delle risorse, per la chiamata dei professori di I e II fascia e per il reclutamento dei ricercatori a tempo determinato tipologia ‘B’” (DR n. 1506/2014) e della nota del Rettore n. 0049554 del 1° settembre 2014.

La proposta riguarda **Olga Mikhailovna YASTREBOVA**, Full-time Researcher (*naučnyi sotrudnik*), Sector of Oriental Collections, Manuscript Department of the National Library of Russia (Russia) [v. allegati 1a e 1b]<sup>1</sup> e Part-time Assistant Professor at the Department of Iranian Philology, Oriental Faculty, St. Petersburg State University (Russia)<sup>2</sup>.

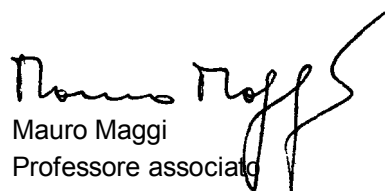
La professoressa Yastrebova, che ci ha confermato la sua disponibilità di massima a essere chiamata alla Sapienza, contribuirebbe validamente alla ricerca e alla didattica del dipartimento in ambito iranistico a tutti i livelli, in particolare nel settore L-OR/15.

Ai fini della proposta di chiamata della professoressa Yastrebova:

- 1) alleghiamo il **curriculum vitae** della candidata (v. allegato 2);
- 2) proponiamo che la candidata sia chiamata nel ruolo di **professore associato**;
- 3) abbiamo verificato che la candidata **supera le soglie ANVUR** per i professori associati;
- 4) specifichiamo che si tratta di “**chiamata diretta di studiosi stranieri**” secondo l'art. 1, comma 9, della Legge n. 230/2005 e successive integrazioni e modifiche.



Nella speranza che tu voglia accogliere favorevolmente la presente proposta e appoggiarla nelle sedi preposte, ti inviamo i più cordiali saluti e ringraziamenti.



Mauro Maggi  
Professore associato  
L-OR/14 Filologia, religioni e storia dell'Iran



Paola Orsatti  
Professore associato  
L-OR/15 Lingua e letteratura persiana

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<sup>1</sup> <http://www.nlr.ru/nlr/who/text/yastrebova.htm> e [http://www.orientalstudies.ru/rus/index.php?option=com\\_personalities&Itemid=74&person=288](http://www.orientalstudies.ru/rus/index.php?option=com_personalities&Itemid=74&person=288).

<sup>2</sup> [http://orient.spbu.ru/departament/staff/staff\\_198.html](http://orient.spbu.ru/departament/staff/staff_198.html).



[Allegato 1a]

Министерство культуры Российской Федерации  
Федеральное государственное бюджетное учреждение  
«РОССИЙСКАЯ НАЦИОНАЛЬНАЯ БИБЛИОТЕКА»

По месту требования

Садовая ул., 18, Санкт-Петербург, 191069

Тел. (812) 310-28-56, Факс (812) 310-61-48

office@nlr.ru www.nlr.ru

29.09.2014 № 26-к

ИНН 7808036089

КПП 784001001

### СПРАВКА

Дана **Ястребовой Ольге Михайловне, 15.12.1973 г.р.,** научному сотруднику отдела рукописей, в том, что она с 25.09.1995 г. по настоящее время работает в **Федеральном государственном бюджетном учреждении «Российская национальная библиотека».**

Указанная работа является основной.

Основание: трудовой договор № 586 от 20.09.2004 г.

Начальник отдела кадров

В.О. Коротков

Исп. Л.С. Малыгина  
тел. (812)718-85-11

Ministry of Culture of the Russian Federation

Federal State Budgetary Institution  
"NATIONAL LIBRARY OF RUSSIA"

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29/09/2014 No. 26-к

INN 7808036089

KPP 784001001

To whom it may concern

### REFERENCE

This is to certify that **Olga Mikhailovna Yastrebova**, born on **15/12/1973**, Scientific Employee of the Manuscript Department, has been working in the **Federal State Budgetary Institution "National Library of Russia"** from 25/09/1995 to the present time.

The said work is her primary employment.

Grounds: Labor Agreement No. 586 dated 20/09/2004

Head of the Human Resources Department

/signature/

V.O. Korotkov

Executive-in-charge L.S. Malygina

Tel. (812) 718-85-11

ПЕРЕВОД ВЫПОЛНЕН  
КОМПАНИЕЙ  
ЭГО ТРАНСЛЕЙТИНГ  
  
TRANSLATED BY  
EGO TRANSLATING  
COMPANY





[Allegato 2]

## **Olga Yastrebova**

PhD (kandidat nauk)

Born 15.12.1973, Leningrad (St. Petersburg), USSR.

Telephone No.: (+7) 921 7531314

E-mail: [yastrebochek@gmail.com](mailto:yastrebochek@gmail.com)

### **Work Address:**

National Library of Russia

[www.nlr.ru](http://www.nlr.ru)

Sadovaya st. 18, St. Petersburg, 191069, Russia.

St. Petersburg State University, Faculty of Asian and African Studies

<http://www.orient.spbu.ru/>, <http://en.orient.spbu.ru/>

Universitetskaya nab. 11, St. Petersburg, 199034, Russia.

Home Address: Basseyay st. 61-43, St. Petersburg, 196135, Russia

### **Education**

- |           |                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1990-1995 | Studied Iranian philology at the Oriental faculty, Saint Petersburg State University (honours degree).                                                                                                                                                                                                                                                                                                        |
| 1997      | Attended one month course of the Persian language held by the Organization for the promotion of the Persian language ( <i>Sazman-e gostaresh-e zaban-e farsi</i> ) in Tehran.                                                                                                                                                                                                                                 |
| 1999      | Took part in the three month program of visiting fellowship at the Library of Congress organized by the Soros Foundation (included practice in the Freer and Sackler Galleries).                                                                                                                                                                                                                              |
| 2010      | defended dissertation at the Saint Petersburg State University. Title of the dissertation: “ <i>Ardāy-Vīrāf Nāmāh</i> by Zartusht Bahram Pazhdu in the manuscript of the National Library of Russia” (the PDF of the thesis abstract is available online at: <a href="http://www.spbu.ru/files/upload/disser/east/2010/yastrebova.pdf">http://www.spbu.ru/files/upload/disser/east/2010/yastrebova.pdf</a> ). |

### **Professional development**

- |                |                                                                                                                                                                                          |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1995–1999      | full-time librarian at the Sector of Oriental collections, Manuscript Department of the National Library of Russia.                                                                      |
| 1999 –now      | full-time researcher ( <i>nauchnyi sotrudnik</i> ) at the Sector of Oriental collections, Manuscript Department of the National Library of Russia.                                       |
| 1997–2008      | part time lecturer of the Persian language at the Oriental Faculty of the Saint Petersburg State University.                                                                             |
| Sept. 2011–now | part-time assistant professor at the Department of Iranian Philology, Oriental Faculty, St.Petersburg State University.<br>Courses taught: Classical Persian texts, Islamic manuscripts. |

**Research interests:** Islamic manuscripts (codicology and collections); classical Persian literature; literature of Zoroastrians in the New Persian language; 19<sup>th</sup> century Russian Orientalists in Central Asia.



**Teaching experience:** poetic and prosaic texts from the classical period of the Persian literature; course on Islamic manuscripts and codicology.

**Participation in projects:**

- 2001–2003. Zerrspiegel/Zerkala. Project of the Institute of Oriental Studies, Martin-Luther-University, Halle, Wittenberg, Germany. Head of the project Prof. Jürgen Paul.
- 2004–2006. The Marcel Collection in the National Library of Russia (description and preparation of the computer catalogue of the collection of the early Quranic manuscripts from the collection of J.-J. Marcel; preparation of the printed catalogue of the collection). Heads of the project O.V. Vasilyeva (NLR) and V.V. Polosin (Institute of the Oriental manuscripts, Russian Academy of Sciences). Supported by Max Van Berchem foundation.
- 2010–2011. Electronic publication of the manuscripts of the collection of sheikh Muhammad Ayyad al-Tantawi (1810-1861) in the Oriental department of the Research Library of the SPb. State University. Head of the project Prof. N.N. Dyakov. Supported by the Russian Foundation of Fundamental Research, grant № 10-06-00540.

**Expeditions:**

- 1997, 1998 – the archaeological expedition of the Hermitage Museum in Panjkant (Tajikistan);
- 2011, 2012 – the archaeological expedition of the Hermitage Museum in Hisorak (Kuhistan-i Mastchah, Tajikistan).

**Main publications.**

**Catalogues of Islamic manuscripts:**

- Персидские и таджикские документы в отделе рукописей Российской национальной библиотеки: Систематический каталог (Persian and Tajik documents in the National Library of Russia: A Systematic Catalogue). (St.Petersburg: the National Library of Russia, 1999) 208 pp.
- Поступления в сектор восточных фондов (New acquisitions of Oriental manuscripts), in Новые поступления в Отдел рукописей РНБ: Каталог (New acquisitions of the Manuscript Department of the National Library of Russia in the years 1996–2000 – together with Olga Vasilyeva). (St.Petersburg: the National Library of Russia, 2004.). Pt. 2, 165-252.
- New acquisitions of Oriental manuscripts in the National Library of Russia in the years 2001–2005 (in the course of preparation, includes descriptions of about 200 Islamic manuscripts).

**Translations from Persian:**

- Shihab al-din. Life of Amir Kulal, translation and commentary (Шихаб ад-Дин. Житие Амира Кулала), in *Мудрость суфиев (Wisdom of the Sufis)*, (St.Petersburg, 2001).
- Jalal al-din Rumi. Masnawi-yi Ma'nawi.
- Daftar 1, transl. by O. F. Akimushkin, Yu. A. Ioannesian, A. S. Khismatulin, O. M. Yastrebova, ed. A. S. Khismatulin (St. Petersburg, 2007).
- Daftar 2, trans. by M. N.-O. Osmanov, ed. O. M. Yastrebova (2009).
- Daftar 3, trans. by O. M. Yastrebova, ed. A. S. Khismatulin (2010).
- Daftar 5, transl. by O. M. Yastrebova, ed. A. S. Khismatulin (2011).
- Daftar 6, transl. by A. S. Khismatulin and O. M. Yastrebova (2012).

**Other publications:**

- “Reconstruction and description of mirza Muhammad Muqim’s collection of manuscripts in the National Library of Russia”, *Manuscripta Orientalia: International journal for Oriental manuscript research*, III, 3 (St.Petersburg-Helsinki, 1997), 24-38.
- “The manuscripts of ‘Changranghache Name’ and ‘Arday Viraf Name’ by Zartusht Bahram Pazhdu”, *Studia Orientalia*, 95 (Helsinki, 2003), 251-262.
- “Документы 19 века из верховьев реки Зеравшан в Отделе рукописей Российской национальной библиотеки” (“19th century documents from the Upper Zarafshan valley in the Manuscript department of the National Library of Russia”), *Vostochnyi sbornik*, 6 (National Library of Russia: St.Petersburg, 2003), 77-123.
- “The Bukharan amir Abd al-Ahad’s voyage from Bukhara to St. Petersburg”, *Looking at the coloniser: cross-cultural perceptions in Central Asia and the Caucasus, Bengal, and related areas*, Ed. by Beate Eschment, Hans Harder (Würzburg: Ergon Verlag, 2004).
- “Зороастрийский автор в литературном контексте своей эпохи: тюркско-монгольские заимствования в поэме «Книга Арда Вирафа» Зартушта Бахрама” (“A Zoroastrian author in the literary context of his time: Turkic-Mongol loan words in the ‘Book of Arda Viraf’ by Zartusht Bahram”), *Вестник Санкт-Петербургского университета. Серия 9: Филология, востоковедение, журналистика (Bulletin of the St.Petersburg University, Series 9: philology, oriental studies, journalistic)*, 4, II (St.Petersburg, 2007), 220–230.
- “Прозаическая персидская версия ‘Книги о праведном Виразе’ в списке Института восточных рукописей” (Persian prose version of the ‘Book of the righteous Viraz’ in the manuscript of the Institute of Oriental Manuscripts), *Письменные памятники Востока (Pis’mennye pamyatniki Vostoka – Written sources of the East)*, (St.Petersburg, 2010), 2 (11), 139–151.
- “The Influence of the *Shahnama* in the extended version of *Arday Viraf nama* by Zartusht Bahram”, *Shahnama Studies, II. The Reception of Firdausi’s Shahnama*. Ed. by Charles Melville and Gabrielle van den Berg. Leiden-Boston (Brill), 2012. P. 79–100.
- “The *muraqqa* ‘album of the Zand period (PNS 383) in the National Library of Russia” (together with O. Vasilyeva), in *Ferdowsi, the Mongols and the history of Iran: Art, Literature and culture from early Islam to Qajar Persia*. Ed. Robert Hillenbrand, A.C.S. Peacock and Firuza I. Abdullaeva. I.B. Tauris: London-New York, 2013. P. 359–369.
- Андарз Суруша в новоперсидской прозаической версии «Ардай-Вираф нама» (The “Andarz” of Surush in the Persian prose version of the “Arday-Viraf Nama”, in *Commentationes Iranicae: Сборник к 90-летию Владимира Ароновича Лившица (Festschrift for Vladimir Aronovich Livshits)*. Ed. S.R.Tohtas’ev and P.B.Lurie (St.Petersburg, 2013), 520-529.

#### **Editor:**

Классическое искусство исламского мира IX–XIX веков: Девяносто девять имен Всевышнего (Classical art of Islamic world from 9<sup>th</sup> to 19<sup>th</sup> centuries: Ninety-nine Names of God). (Moscow: Marjani Publishing House, 2013). Comp. by G. Lasikova. Ed. by T. Anikeeva, O. Yastrebova.

**Total number of publications – 33.**

**Commissione  
Chiamate dirette del personale docente  
Delibera del S.A. n. 442/14 del 11/11/2014**

**Verbale riunione del 19 novembre 2014**

Il Presidente ricorda che con deliberazione n. 442/14 nella seduta dell'11.11.2014 del Senato Accademico è stato deciso di nominare una Commissione, presieduta dal Pro-Rettore Vicario prof. Renato Masiani, anche in rappresentanza della Macro-area D, e composta dai professori:

- Emanuele Caglioti, Macro-area A
- Davide Antonio Ragozzino, Macro-area B
- Giorgio De Toma, Macro-area C
- Alessandro Saggioro, Macro-area E
- Paola Panarese, Macro-area F

con il compito di valutare le proposte di chiamata diretta per l'anno 2014, sia quelle già presentate in S.A. che quelle preannunciate in corso di seduta, verificando il possesso dei requisiti da parte dei candidati ed in particolare i requisiti di qualificazione scientifica ANVUR.

La Commissione, riunitasi in data 19/11/2014 alle ore 9,30 presso l'ufficio del Prorettore vicario, ha preso visione dei curricula, della documentazione allegata, dei verbali dei Consigli dei Dipartimenti che hanno trasmesso le delibere contenenti le proposte di chiamata diretta, dell'art. 11 del "Regolamento per l'assegnazione delle risorse, per la chiamata dei professori di I e II fascia e per il reclutamento di Ricercatori a tempo determinato tipologia B", nonché dei DM 1 luglio 2011 e DM n. 1 luglio 2011.

Alla riunione partecipa, in qualità di segretario verbalizzante, la Dott.ssa De Martino.

La Commissione inizia i lavori ricordando i criteri generali di valutazione e i requisiti richiesti ai candidati nonché le finalità dell'istituto delle chiamate dirette che ha come obiettivo, tra l'altro, la possibilità di acquisire docenti stabilmente impegnati all'estero in attività di ricerca o di insegnamento a livello universitario in posizioni di livello pari a quelle del bando, oppure vincitori di progetti di ricerca internazionali di alta qualificazione di durata almeno triennale.

Dopo ampia ed approfondita discussione, la Commissione valutati i CV, le posizioni attualmente ricoperte e le abilitazioni nazionali conseguite, esprime unanimemente parere favorevole in ordine alle seguenti proposte di chiamata diretta:

| Nominativo           | Ruolo proposto | Dipartimento proponente | S.S.D. | Abilitazione Scientifica Nazionale                 | Posizione attualmente ricoperta                                                                                                                                                                                                       |
|----------------------|----------------|-------------------------|--------|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Francesco MAURI      | PO             | Fisica                  | FIS/03 | Abilitato Prima fascia SC 02/B2 ASN 2012           | Directeur de Recherche (première classe) presso Institut de Minéralogie ed de Physique des Milieux Condensés (Paris) Université Pierre et Marie Curie Paris VI. Dal 1998 al 2012 Professore Université Pierre et Marie Curie Paris VI |
| Alessandro VENEZIANI | PA             | Matematica              | MAT/08 | Valutato idoneo nella tornata 2012 per la I fascia | Professore Associato c/o Department of Mathematics & Computer Science, Emory University Atlanta USA                                                                                                                                   |
| Enzo PASCALE         | PA             | Fisica                  | FIS/05 | Abilitazione Scientifica Nazionale 02/C1           | Senior Lecturer c/o Cardiff University                                                                                                                                                                                                |

|                    |    |        |        |                                                   |                                                                |
|--------------------|----|--------|--------|---------------------------------------------------|----------------------------------------------------------------|
| Sandro DE<br>CECCO | PA | Fisica | FIS/01 | Abilitazione<br>Scientifica<br>Nazionale<br>02/A1 | Maitre de Conférence c/o Université<br>Paris Diderot - Paris 7 |
|--------------------|----|--------|--------|---------------------------------------------------|----------------------------------------------------------------|

avendo valutato, in base al CV e all'istituzione di appartenenza, la posizione ricoperta dal prof. De Cecco equivalente a quella di Professore associato.

La Commissione passa ad esaminare le candidature dei professori Frank MARZANO e Neguin YAVARI.

| Nominativo       | Ruolo<br>proposto | Dipartimento<br>proponente                                             | S.S.D.     | Abilitazione<br>Scientifica<br>Nazionale    | Posizione attualmente<br>ricoperta                                                                                                                                                 |
|------------------|-------------------|------------------------------------------------------------------------|------------|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frank<br>MARZANO | PO                | Ingegneria<br>dell'Informazione,<br>Elettronica e<br>Telecomunicazioni | ING-INF/02 | Abilitazione<br>scientifica<br>nazionale PO | PA presso il Dip.<br>Proponente. Coordinatore<br>di 3 Progetti a livello<br>europeo: FP7- HydroRad<br>(2009-2011); FP7-HydrEx<br>(2010-2012) e IPA-<br>ADRIARadNet (2012-<br>2015) |
| Neguin<br>YAVARI | PA                | Dipartimento "Istituto<br>di Studi Orientali"<br>ISO                   | L-OR/14    |                                             | Assistant Professor c/o<br>The New School NY USA<br>e Adjunct Associate<br>Researcher Scholar c/o<br>Colombia University NY<br>(USA)                                               |

Per quanto riguarda la proposta di chiamata diretta del Professore Frank Marzano nel ruolo di Professore Ordinario nel s.s.d. ING-INF/02, proposta dal Dipartimento di Ingegneria dell'Informazione, Elettronica e Telecomunicazioni, la Commissione osserva che il prof. Marzano è titolare dell'abilitazione nazionale alla prima fascia in due settori concorsuali e autore di 103 pubblicazioni su rivista internazionale; segnala poi che i Progetti dei quali il Prof. Marzano è Responsabile (FP7- HydroRad 2009-2011, durata 2 anni; FP7-HydrEx 2010-2012 durata 2 anni; IPA-ADRIARadNet 2012-2015, durata 2,5 anni), non sono esplicitamente compresi tra quelli indicati nel DM 1 luglio 2011 il DM n. 1 luglio 2011 *"Identificazione dei Programmi di ricerca di alta qualificazione, finanziati dall'Unione Europea o dal Ministero dell'istruzione, dell'università e della ricerca di cui all'art. 29, comma 7, della legge n. 240/2010"*.

Tuttavia, in considerazione del fatto che il Ministero ha omesso di adeguare, come previsto dall'art. 5 del DM stesso, la definizione dei progetti, che i progetti coordinati dal prof. Marzano appaiono tutti di notevole rilevanza internazionale, anche per l'importanza dei gruppi di ricerca coinvolti, e dell'ottimo curriculum scientifico del candidato, la Commissione ritiene di esprimere all'unanimità parere favorevole in ordine alla proposta di chiamata.

Per quanto attiene la Prof.ssa Neguin YAVARI, la quale ha cittadinanza straniera ed ha sempre operato all'estero, si rileva che non sussiste equivalenza piena tra la posizione accademica attualmente ricoperta all'estero e quella di Professore Associato, secondo le tabelle di corrispondenza del DM 2 maggio 2011.

Tuttavia la Commissione rileva che le ricerche della Professoressa Neguin Yavari si estendono a coprire una serie di ambiti disciplinari di grande interesse, attualmente non rappresentati o rappresentati in maniera parziale nella nostra università, che includono lo studio della civiltà islamica medievale e moderna, particolarmente d'espressione persiana; la storia dello sciismo; la storia dell'Iran; la letteratura persiana di carattere storiografico; la storia dei rapporti tra le minoranze e l'Islam. La Professoressa Yavari ha pubblicato una serie di articoli in volumi

miscellanei di grande rilievo e articoli su riviste scientifiche (in totale 17 articoli), oltre a numerose voci d'enciclopedia e recensioni. Ha inoltre pubblicato una monografia per la Oxford University Press, mentre un'altra monografia è stata consegnata per pubblicazione presso la Columbia University Press. Ha inoltre curato la pubblicazione di due raccolte di saggi (la seconda in stampa) sempre in sedi prestigiose. La produzione scientifica della Professoressa Yavari rispetta pienamente le mediane previste nel macrosettore concorsuale 10/N1 per i professori.

Ciò valutato, la Commissione rileva che la Prof.ssa Yavari presenta un curriculum di ottimo livello e di grande interesse anche ai fini di potenziare la dimensione internazionale della ricerca e della formazione del nostro Ateneo, in quanto studiosa straniera attiva all'estero, e pertanto ritiene di esprimere all'unanimità parere favorevole in ordine alla proposta di chiamata.

La Commissione rileva poi che i sottoelencati docenti non hanno ancora stabilmente raggiunto la posizione equivalente a professore di seconda fascia all'estero richiesta e pur in presenza, per la candidata Bueti, dell'abilitazione scientifica nazionale alla seconda fascia, ritiene all'unanimità opportuno non accogliere per quest'anno la richiesta di chiamata diretta per i candidati Domenica BUETI, Laura SANITA' e Olga Mikhailovna YASTREBOVA.

| Nominativo                  | Ruolo proposto | Dipartimento proponente                                   | S.S.D.   | Abilitazione Scientifica Nazionale             | Posizione attualmente ricoperta                                                                                                  |
|-----------------------------|----------------|-----------------------------------------------------------|----------|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Domenica BUETI              | PA             | Psicologia Dinamica e Clinica                             | M-PSI/01 | Abilitazione Scientifica Nazionale PA SC 11/E1 | Responsabile di ricerca Professor Assistant c/o Ospedale Universitario di Losanna Svizzera                                       |
| Laura SANITA'               | PA             | Ingegneria Informatica Automatica Gestionale "A. Ruberti" | MAT/09   |                                                | Assistant Professor c/o University of Waterloo Canada                                                                            |
| Olga Mikhailovna YASTREBOVA | PA             | Istituto di Studi Orientali ISO                           | L-OR/15  |                                                | Full-time Researcher c/o National Library of Russia e Part-time Assistant Professor c/o St. Petersburg State University (Russia) |

Infine, per quanto riguarda le chiamate dirette della dott.ssa Grazia Portoghesi Tuzi e quella della dott.ssa Christine LUTRINGER-GULLY in qualità di Ricercatore a tempo determinato di tipo B, la Commissione prende atto che i dipartimenti proponenti hanno ritirato le proposte causa l'assenza del cofinanziamento ministeriale per queste posizioni e della norma, ricordata in Senato Accademico, che prevede di addebitare sulle future attribuzioni di risorse ai dipartimenti proponenti quanto l'Ateneo spenderà per le chiamate dirette.

La riunione termina alle ore 12,30. Il presente verbale è letto ed approvato seduta stante.

Il Segretario  
Dott.ssa Giuliana De Martino Rosaroll

Il Presidente  
Prof. Renato Masiani