SAPIENZA
UNIVERSITÀ DI ROMA

European Research Council
Established by the European Commission

SAPIENZA ERC DAY

Celebrating Excellence in Research: 10 years of ERC at Sapienza

Rome, 13 march 2017, 09.30 a.m.
Department of Oral and Maxillo-facial Sciences
Aula A, via Caserta 6 - 00161 Rome

International Office
Researcher Mobility and European Programmes Sector

"Sapienza ERC Week"

Celebrating Excellence in Research: 10 years of ERC at Sapienza

Rome, 13-16 March 2016

The **ERC Programme** supports top researchers from anywhere in the world and across disciplines that intend to pursue fronteer research in EU states or in Associated Countries.

In 2017, the European Research Council will mark its **10th anniversary**, organizing the "**ERC Week**", that will take place from 13 to 19 of March. The program includes numerous events in Bruxelles and across Europe, that will be an occasion to reflect upon the past decade and the future of high quality research across Europe.

Sapienza gives great importance to the ERC Programme and decided to participate in the celebrations promoted by the Executive Agency and to organize the "**Sapienza ERC Week**". The programme consists of various events directed both to the scientific community and the wider public and the main protagonists will be Sapienza ERC Grantees and their projects.

The opening event, **"Celebrating Excellence in Research: 10 years of ERC in Sapienza"**, will take place on Monday 13 March, starting at 9.30 a.m., at the Department of Oral and Maxillo-facial Sciences, and it will be dedicated to presenting the ERC Program, with a focus on funding opportunities, results obtained and the experiences of Sapienza ERC Grantees.

Three workshops will follow, on the 13 and 14 March, one for each ERC Panel, addressed to potential participants to the next calls.

Finally, on the 15 March, the Department of Physics will organize **"Open Lab ERC",** that is a tour open to high school students who will be able to visit the labs of the ERC Principal Investigators and to approach their research activities (through demonstrations, experiments, ecc.).

To register:
http://www.uniroma1.it/questionari/registrazione-ercday

For information:
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"ERC Day. Celebrating Excellence in Research: 10 years of ERC at Sapienza"

Rome, 13 March 2017, at the Department of Oral and Maxillo-facial Sciences, Room A, via Caserta 6 – 00161 Rome

Programme

09.15	**Participants registration**
09.30	**Opening and welcome addresses** **Prof. Bruno Botta** (Deputy Rector for International Relations)
09.45	**I session: 10 years of ERC. History and Strategy of a successful programme** **The ERC Programme: Opportunities, funding schemes, results** **Dr. Monica Favaro,** ERCEA Scientific Officer – END CNR **Italian participation to ERC Programme and the role of the National Contact Point** **Dr. Serena Borgna,** APRE – National Contact Point ERC **Sapienza participation in figures** **Dott.ssa Maria Ester Scarano**, Head of International Office, Sapienza
10.45	**II session: The evolution of the ERC Programme from the Sapienza Grantees' perspective** **ERC Grantees testimonies: Participation to the first FP7 calls** **Prof. Tullio Scopigno**, Department of Physics, Principal Investigator ERC-2007-StG, project "FEMTOSCOPY" **ERC Grantees testimonies: Participation to the most recent H2020 calls** **Prof. Roberto Navigli,** Department of Computer Science, Principal Investigator ERC-2010-StG, Project "MultiJEDI" and Principal Investigator ERC-2016-CoG , Project "MOUSSE" **The ERC Programme and the national funding opportunities for research** **Prof. Giorgio Parisi**, Department of Physics, Principal Investigator ERC-2009-AdG Project "CriPheRaSy" and Principal Investigator ERC-2016-AdG Project "LoTGlasSy"
11.45	**III session: The ground-breaking nature of ERC projects and their impact on the Principal Investigators' careers** **Prof.ssa Irene Bozzoni**, Principal Investigator ERC-2013-AdG, Project "MUNCODD" **Prof. Fabio Sciarrino,** Principal Investigator ERC-2012-StG, Project "3D-QUEST" and Principal Investigator ERC-2015-PoC project "3D-COUNT"; **Prof.ssa Emanuela Cristiani,** Principal Investigator ERC-2014-StG, Project "HIDDEN FOODS"
12.45	**Q&A session**

“ERC Day. Celebrating Excellence in Research: 10 years of ERC at Sapienza”

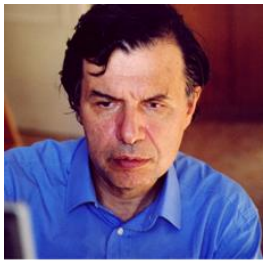
Speakers presentation

Prof. Tullio Scopigno – Department of Physics
Principal Investigator ERC-2007-StG, project “FEMTOSCOPY”

Tullio Scopigno, Professor at the Department of Physics, has prevalently conducted experimental research on the physics of matter. His scientific production is ample and has a significant scientific impact. It exhibits originality and scientific innovation, as, for example, his research on liquid metal microscopic dynamics, and on glass transition and relaxation processes. He received numerous international awards and coordinates important national and international research projects, including Project **FEMTOSCOPY**. Project **FEMTOSCOPY** was funded in 2008 by an **ERC Starting Grant** to address the study of ultrafast processes of physical, chemical and biological interest and develop an innovative laboratory. The project, in particular, aimed to develop a femtosecond broadband stimulated Raman setup to tackle ultra-fast chemical, physical and biological processes taking advantage of the top-notch structural sensitivity inherent in the Raman process. In fact, the use of a pump-probe stimulated scheme allows time-energy restrictions dictated by the uncertainty principle to be overcome and reach the femtosecond timescale with energy resolutions on the scale of a picosecond time domain in the Heisenberg sense.

Prof. Roberto Navigli – Department of Computer Science Dipartimento di Informatica
Principal Investigator ERC-2010-StG, Project “MultiJEDI” e Principal Investigator ERC-2016-CoG , Project “MOUSSE”

Roberto Navigli is an Associate Professor at the Sapienza Department of Computer Science whose research focuses on the elaboration of natural language. In 2007, Prof Navigli received the Marco Cadoli AI*IA National Award for the best doctoral thesis in artificial intelligence and the Marco Somalvico AI*IA Award in 2014 as the best young Italian researcher in artificial intelligence. andhe is Co-PI of Project "Language Understanding cum Knowledge Yield" (LUcKY), which received the Google Focused Research Award. In 2010, Prof Navigli obtained an **ERC Starting Grant** for Project **MultiJEDI**, which aims to bridge the gap in terms of intelligent systems capable of performing unified semantic processing of textual resources in a multitude of different languages. In multilingual processing, we currently mainly rely on aligned bilingual texts or limited-range multilingual sources to accomplish cross-linguistic disambiguation, an unrealistic requirement when working with an arbitrary number of language combinations. The project investigates new methods of multi-lingual word sense disambiguation (WSD) by devising and experimenting new graphic based algorithms to jointly disambiguate different languages. However, while WSD is typically performed in monolingual settings, in order to enable multilingual processing, the semantic connections between word senses in different languages need to be exploited. The project will have an impact not only on WSD research, but also on related areas such as Information Retrieval Machine Translation.



Prof. Giorgio Parisi – Department of Physics
Principal Investigator ERC-2009-AdG Project "CriPheRaSy" and Principal Investigator ERC-2016-AdG Project "LoTGlasSy"

Prof Giorgio Parisi is one of the most influential theoretical physicists, not only in Italy, but in the international scientific panorama. Together with Carlo Rubbia, he is the only Italian physicist who is member of the American National Academy of Sciences. Prof Parisi's studies, which range from the physics of elementary particles to statistical physics, have had a significant impact not only on physics, but also on other fields, such as anthropology, cognitive sciences, finance and social sciences. Prof Parisi has received numerous awards, including the Enrico Fermi Award, the Dannie Heineman Award, the Galileo Award and the prestigious Max Planck Medal.
In 2009, Prof Parisi received an **ERC Advanced Grant** for Project **CriPheRaSy**, which aims to develop a theoretical understanding of the most important large-scale phenomena in classical and quantum disorder systems. Disordered systems are in many ways remarkably peculiar (i.e., non-perturbative phenomena like Griffiths singularities) and the conventional approach often does not work, leaving many crucial issues unclear. The project aims to bridge this gap in the understanding of disordered systems, concentrating on some of the most important and studied systems, including: spin glasses, random field ferro-magnets, Anderson and Mott localization (with possible experimental applications for Bose-Einstein condensates and electron glasses), and surface growth in random media (KPZ and DLA models).

Prof.ssa Irene Bozzoni – Department of Biology and Biotechnologies "Charles Darwin"
Principal Investigator ERC-2013-AdG, Project "MUNCODD"

Prof Irene Bozzoni is a member of the MIUR "Rita Levi-Montalcini" Commission for the "Young Researchers" Programme (and has also served as a member of the Experts Committee for Research Policies). Prof Bozzoni has published over 120 scientific papers and is the owner of 8 patents, including 3 that have been sold to industry.
Irene Bozzoni's scientific field of interest is the study of RNA metabolism in eukaryotic cells and the role of post-transcriptional processes in the control of gene expression. Her research focuses on the study of gene expression and especially on post-transcriptional control processes. She has received several awards and prizes, including the Giovanna Jucci Award, the Tartufari Award from the "Accademia dei Lincei" and the Sapienza Research Award.
In 2013, Prof Bozzoni received an **ERC Advanced Grant** for Project **MUNCODD**. The main objective of the project is to study the molecular networks controlling normal muscle differentiation and to identify the alterations that take place in case of pathologies. The state of art in this field is thoroughly advanced: the genes (transcriptional factors and miRNAs) that regulate muscle development and differentiation are well known. To date, however, another recently discovered gene component still remains to be understood, that of non-coding RNA, which does not generate proteins. This is an innovative research field that will help us not only to understand the molecular processes underlying normal and abnormal processes of muscle development and differentiation, but also to develop new diagnostic and therapeutic strategies for neuromuscular and heart diseases.

Prof. Fabio Sciarrino – Department of Physics
Principal Investigator ERC-2012-StG, Project "3D-QUEST" and Principal Investigator ERC-2015-PoC Project "3D-COUNT"

Prof Fabio Sciarrino is the author of over 100 publications in international journals, including 10 publications on *Nature*. He has received prestigious awards such as the Sapio Junior Award for Italian Research, the "Science in Physics" Medal, the President of the Republic Medal and the Sapienza Research Award. Prof Sciarrino also coordinates a number of European projects (3dquest, Picque eQuchip). His research activities, which are devoted to experimental quantum optics, quantum information and computation, and the foundations of quantum mechanics, have led to the development of new techniques in these fields. In 2012, Prof Sciarrino won an **ERC Starting Grant** for Project **3D-QUEST**. The aim of 3D-QUEST is to develop and implement quantum simulation by exploiting 3-dimensional integrated photonic circuits. Its main objective is to understand the quantum nature of information and learn how to process it with physical systems that operate by following quantum mechanical laws. Quantum simulation is a fundamental instrument to investigate phenomena related to quantum systems dynamics, such as quantum transport, particle localizations and energy transfer, quantum-to-classical transition, and even quantum improved computation, all tasks that are hard to simulate with classical approaches. In this context, integrated photonic circuits have a strong potential as hardware for developing quantum information processing via optical systems. 3D-QUEST is structured to demonstrate the potential of linear optics in implementing a computational potential far exceeding that of classical computers, a scenario that may be disclosed through the development of multi-photonic-multimode platforms.

Prof.ssa Emanuela Cristiani – Department of Oral and Maxillo-facial Sciences
Principal Investigator ERC-2014-StG, Project "HIDDEN FOODS"

Prof. Emanuela Cristiani's research is in the field of archeology. She was a researcher at the University of Cambridge and at Columbia University of New York, as well as Marie Curie Fellow. In 2014, prof. Emanuela Cristiani won an **ERC Starting Grant** for project **HIDDEN FOODS** and since 2016 she is Associate Professor at the Department of Oral and Maxillo-facial Sciences of Sapienza. The role of plant foods among prehistoric hunter-gatherer societies remains one of the major issues of World Prehistory. Recovering evidence for the use of plants in ancient forager diets presents many difficulties due to the low rate of survival of organic remains. The **HIDDEN FOODS** project aims to further develop a suite of methods (e.g. use-wear analysis of lithic macro-tools; experimental archaeology; metagenomics of ancient oral microbiome; study of oral pathologies; study of micro-fossils preserved in tartar and material culture; study of botanical macro-remains and parenchyma) in order to obtain systematic evidence about the importance of plant foods in European early prehistory and assess the role of starchy food for prehistoric hunter-gatherers' health status. The project will investigate both direct and indirect archaeological evidence for plant foods processing and consumption in Palaeolithic and Mesolithic societies of the Balkans and Italy: ground stone tools, macro-botanical remains and human skeletal remains.