Dr. Michele Ortolani

PhD in Materials Science at Sapienza University of Rome, 2005.

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Current Position

ASSOCIATE PROFESSOR at Dept. of Physics, Sapienza University of Rome, since March 2019.
Previously ASSISTANT PROFESSOR at the same Dept. since December 2011.
RESEARCH: Terahertz spectroscopy and imaging with tunable all-electronic sources. Near-field spectroscopy and imaging with quantum cascade lasers. Infrared Plasmonics: theory, experiment, fabrication. Infrared spectroscopy of solid-state materials for electronics and photonics.
TEACHING at Sapienza University of Rome:
2020-present: General Physics at Geological Sciences (60 students/y, 70 hrs/y)
2020-present: Physics Laboratory 1 at the Master course in Physics (40 students/y, 50 hrs/y)
2014-2019: General Physics at Faculty of Engineering (140 students/y, 120 hrs/y);
2013-present Supervision of 2 PhD students/post docs and 3 master students per year (on avg).

Grants/Funds awarded

➔ ***October 2019 to October 2022***
UNIT COORDINATOR in a Targeted Research Project (RF), funded by the Italian Ministry of Health. Unit based at Department of Physics, Sapienza University of Rome.
Project title: "Ultrasensitive detection and molecular profiling of tumor-derived exosomes with an integrated microfluidic and Mid-IR plasmonic nanodevice: towards the early detection of cancer"
AMOUNT OF GRANT for the Unit: 77.000 EUR/ 3 years

➔ ***February 2017 to February 2020***
UNIT COORDINATOR in a National Strategic Research Project (PRIN 2015), funded by the Italian Ministry of Research (MIUR). Unit based at Department of Physics, Sapienza University
Project title: "Plasmon-enhanced Vibrational Circular Dichroism"
AMOUNT OF GRANT for the Unit: 101.900 EUR/ 3 years

➔ ***February 2014 to February 2017***
UNIT COORDINATOR in a Information and Communication Technology Cooperation Project funded by the European Commission, 7th Framework Programme, **Future Emerging Technology (FET)** – Open X-track. Unit based at Department of Physics, Sapienza University of Rome, Italy
Project title: "GEMINI: Germanium Mid-Infrared Plasmonics for Sensing Applications"
AMOUNT OF GRANT for the Unit: 291.600 EUR/ 3 years

➔ ***December 2010 to December 2014***
PROJECT COORDINATOR at Institute of Photonics and Nanotechnology of the National Research Council of Italy (CNR-IFN) – Rome, Italy ("**FIRB Futuro in Ricerca**" Project)
Project title: "Electrodynamics of two-dimensional electron gases for the detection of terahertz radiation" funded by the Young Investigator Award of Italian Ministry of Research
AMOUNT OF GRANT: 366.000 EUR/ 4 years

➔ ***July 2013 to February 2015***
PRINCIPAL INVESTIGATOR in **Lawrence Berkeley National Laboratory** User Proposal, Molecular Foundry, Berkeley (CA), USA, involving 6 researchers. 3-month stay in 2014.

Participation to other project units: H2020 FET-Open "FLASH" on Silicon-based quantum cascade lasers, PRIN 2017 on 2D Materials, LazioInnova on Transport Infrastructure monitoring with IR cameras.

Previous professional experience and education

➔***October 2007 - November 2010***
POST-DOCTORAL FELLOW at Institute of Photonics and Nanotechnology – CNR Rome, Italy
Development of antenna-coupled terahertz microelectronic devices

➔***January 2006 - September 2007***
POST-DOCTORAL FELLOW at the Synchrotron Radiation Facility BESSY II - Berlin, Germany
Infrared Spectroscopy: solid state physics, biology and development of advanced instrumentation

➔***April 2005 - December 2005***
COMMISSIONING of the infrared beamline at the Synchrotron ELETTRA – Trieste, Italy
Infrared Spectroscopy instrumentation development

➔***October 2001- April 2005***
DOCTORATE in Materials Science at University of Rome "Sapienza".
Infrared Spectroscopy of advanced solid state materials

➔***February - July 2000***
STAGE DE MAITRISE at Centre de Recherche sur les Tres Basses Temperatures - Grenoble, France. Transport measurements under high pressures.

➔ ***September 1996 – September 2001***. Final note: 110/110 cum laude
PHYSICS STUDIES at University of Rome "La Sapienza"

15 Invited and keynote talks to International conferences including: IEEE Conf. on Infrared, Millimeter and Terahertz Waves(IRMMW-THz), European conference on Antennas and Propagation (EUCAP), SPIE Photonics West, Gordon Conference on Superconductivity.

More than 50 Oral and Poster contributions to International Conferences

Conference Organization:

- Program Committee of IEEE Conf. on Infrared, Millimeter and Terahertz Waves (IRMMW-THz 2020), Buffalo (NY, USA), November 2020.
  (IRMMW-THz 2019), Paris (France), September 2019.
  (IRMMW-THz 2016), Copenhagen (Denmark), 25-30 September 2016.
  (IRMMW-THz 2014), Tucson (AZ, USA), 11-17 September 2014.
  (IRMMW-THz 2012), Wollongong (Australia) 23-28 September 2012.
  (IRMMW-THz 2010), Rome, 5-10 September 2010.
- Chairman of "PLASMONICA 2014" National Worksop on Plasmonics and Applications, Rome, Italy July 2014.

Journal Reviewer for more than 20 intenrational journals (ACS, APS, Nature-Springer,…)

Publications on International Peer-reviewed Journals: more than 100.

Total citations (Google Scholar): 3441

H-factor (Google Scholar): 30

Appointments:

- Since 2014: Scientific Selection Panel of the BESSY Synchrotron Radiation Facility, Helmoltz Zentrum Berlin, Germany.
- 2015-2016 and 2019-2020: elected in the steering committee of the "Plasmonica" workshop series
- 2017-2018: elected in the Presidency Council of the Italian Society for Optics and Photonics (SIOF), affiliated to the European Optical Society (EOS).

Rome, November 2nd 2021 Prof. Michele Ortolani