



# Marina Putti

Full professor



## *Education and training*

1986

### **Degree in Physics**

Transport properties of a two-dimensional electronic gas and effects due to the two-dimensional gas three-dimensional gas interface - 110/110 e lode  
University of Florence - Firenze - IT

1990

### **PhD in Physics**

Specific heat and thermal diffusivity in the new high temperature superconductors.  
University of Genova - Genova - IT

## *Academic experience*

2019 - ONGOING

### **Full Professor**

University of Genova - Genova - IT

2003 - 2019

### **Associate Professor**

University of Genova - Genova - IT

1992 - 2002

### **Researcher**

University of Genova - Genova - IT

1990 - 1991

### **Post-doctoral fellow**

National Institute of Matter Physics - Genova - IT

## *Teaching activity*

The teaching activity has been carried out with continuity since 1993, at the beginning with the role of support of Laboratory and General Physics courses and since 1997 with the role of teacher.

In particular, I have been mainly involved in the Bachelor degrees in Material Science for which I taught the following courses: Physics Laboratory, Electromagnetisms in materials, Solid State Physics, Material Physics. I have been involved in the Bachelor degrees in Chemistry, Informatics and Engineering, teaching Laboratory and General Physics courses. Actually, I teach General Physics to Engineering, Electromagnetism to Materials Science and Superconductivity to the Physics Master's degree.

**Marina Putti**

*curriculum vitae*

## *Postgraduate research and teaching activity*

### **Supervision of students, residents and post-doctoral fellows**

Supervisor of 30 degree thesis (20 Master and 10 Bachelor degrees)

Supervisor of 16 PhD thesis.

Responsible for 13 research fellowships

### **Committees membership**

Since 2007, member of the evaluation board of the Bachelor degree 2003-2014, member of the Ph.D. School of Science and Technology of Materials at University of Genova.

Since 2014, member of Ph.D. School of Science and Technology of Chemistry of Materials.

Since 2016, responsible for the Curriculum of Science and Technology of Materials.

Since 2019 member of the PhD in Physics and Nanosciences and head of the Curriculum in Applied Superconductivity;

From 2020 Chairman of the Bachelor of Physics Degree Committee.

From 2020 Chairman of the Department Research Commission

## *Research interests*

The beginning of my PhD coincided with the discovery of high-temperature superconductors (HTS). My group, that boasted long experience in the field of conventional superconductivity, was involved in their investigation since the beginning and I had the task of studying the thermal properties of the HTS. The experimental apparatus developed during my PhD thesis and the research started in those years, in the following earned me international collaborations and application-oriented contracts.

Since 1993 I directed my interest to the experimental study of thermoelectric properties such as Seebeck effect and Nernst effect. New experimental apparatuses were appositely developed which allowed a complete characterization of transport properties (resistivity, Hall effect, Seebeck effect and Nernst effect) as a function of temperature, magnetic field amplitude and orientation. The investigation of transport properties started in those years, continues still today and is recognized as excellent at international level.

Since 1996, I became responsible of the laboratory for the measurements of thermal and electrical transport properties and part of my activity was devoted to the characterization and study of new materials (Borocarbides, artificial multilayers). The most important results which I achieved were on the study of thermal fluctuations of HTS and in particular, the observation of the crossover between Aslamazov-Larkin and short wave length regime. I would also mention the study of charge transfer mechanisms in the HTS performed by the investigation of the Seebeck coefficient.

The discovery of superconductivity in magnesium diboride in 2001 marked a turning point in my career. I had the opportunity to coordinate several activities including the production of MgB<sub>2</sub> samples pure and substituted (Prof. A. Palenzona and Prof. P. Manfrinetti of the Department of Chemistry and Industrial Chemistry), irradiation of such samples at international facilities (LENA-University of Pavia, PSI-Zurich), characterization and study of the physical properties of the samples (electrical, magnetic and thermal, critical fields, critical current). Since 2004, I was the Principal investigator (PI) of two successive PRIN projects. PRIN2004 was devoted to the investigation of two-gap superconductivity which is a peculiar of characteristic of MgB<sub>2</sub> which strongly affect all the superconducting properties. We succeeded in tuning the two-gap behaviours by introducing disorder with irradiation and chemical substitution and we had the direct observation of the merging of the energy gaps in neutron irradiated MgB<sub>2</sub> samples. PRIN2006 was still dedicated to the study of multi-band superconductivity in the MgB<sub>2</sub> and we looked for similar characteristics in other kind of superconductors, such as A15 materials. The scientific importance of my research activity on MgB<sub>2</sub> is reflected by the many publications in international journals (65 on this subject with more than 1300 citations) and the invited talks at international conferences (7) among which, the invitation at the March 2006 Meeting of the American Physical Society and, more recently, the plenary talk at EUCAS 2015. Since 2007, I was called to manage the development of MgB<sub>2</sub> wires. I have been the local leader of a FP6 European project (HIPERMAG) and scientific responsible for the contract with the company Columbus-Superconductors which manufactures MgB<sub>2</sub> conductors. The MgB<sub>2</sub> activities have led to a number of international collaborations mainly in the US. I have been PI of an Italian-US bilateral project of particular significance funded by MAE (2008-2011). In order to further develop a common research on MgB<sub>2</sub>, I was invited to spend a year at the Applied Superconductivity Center in Tallahassee at the National High Magnetic Field Laboratory of the Florida State University (FSU) (August 2008-July 2009). During my stay at FSU, iron based superconductors (IBS) were discovered (2008). Being in a hot spot in this field, gave me the opportunity of managing high quality samples and facilities and carrying on scientific exchanges: Once back in Italy I had the occasion of promoting research on IBS. Since 2008 I have been the national coordinator of two PRIN projects (PRIN2008 and PRIN2012) dedicated to fundamental studies on these compounds. Both projects have gathered the main Italian groups working in the field of superconductivity (Università di Parma, Pavia, Cagliari, l'Aquila, Roma la Sapienza, Politecnico di Torino). PRIN2008 was devoted to the investigation of proximity between magnetisms and superconductivity in IBS. It started soon after the discovery of IBS and acted as a seed to tighten the Italian network on IBS. PRIN2012 was devoted to the study of the role of disorder in tuning the superconducting/magnetic properties of IBS: it has worked to consolidate the Italian Superconductivity Network, which is today at the forefront in this field. In 2010 I coordinated the European consortium of FP7 program coordinated

with Japan. The project SUPER-IRON devoted to explore the potential of IBS for application was ranked first in Europe. The project was characterized by the opening and strengthening of important collaborations with European partners and Japanese groups.

I am currently considered worldwide one of the leading experts on novel superconducting materials and their potential for application. As such, I have been invited to give talks, and plenary lectures at major international conferences in the field and to coordinate national and international projects. Recently, I have been involved by CERN for coordinating a collaboration project between CNR-SPIN and CERN devoted to Explore High Performing Superconducting Conductors for FCC, which includes research on MgB<sub>2</sub>, HTS (Bi-2212) and IBS. This project has started in June 2017.

## Grants

2004 - 2006

### **Two-gap superconductivity in MgB<sub>2</sub> role of disorder**

MIUR - IT

330.000 - Pricipal investigator

2007 - 2009

### **Multi-band superconductivity MgB<sub>2</sub> and beyond**

MIUR - IT

232.800 - Pricipal investigator

2010 - 2012

### **High T<sub>c</sub> superconductivity in Fe-based superconductors a new challenge for research**

MIUR - IT

200.000 - Pricipal investigator

2008 - 2010

### **MgB<sub>2</sub> from microscopic mechanisms to large scale applications**

MAECI - IT

200.000 - Pricipal investigator

2011 - 2015

### **SUPER-IRON 'Exploring the potential of Iron-based Superconductors'**

European Commission - BE

2.373.000 - Pricipal investigator

2014 - 2017

### **RIDEIRON Using controlled disorder to investigate the mechanisms of iron based superconductors**

MIUR - IT

406.668 - Pricipal investigator

2017 - 2019

**High performing superconducting materials conductors for CERN-FCC**

CERN - CH

400.000 - Principal investigator

2019 - 2023

**HIBiSCUS “High performance-low cost Iron BaSed Coated conductorS for high field magnets”**

MUR - IT

949.866 - Principal investigator

2022 - 2025

**IRIS - Innovative Research Infrastructure on applied Superconductivity**

PNRR Infrastrutture di Ricerca - IT

1.900.000 – UniGe coordinator

*Editorial activity*

Member of the Advisory Board of Superconductor Science and Technology (2010-2014).

Since 2015 Member of the Executive Board of Superconductor Science and Technology.

Referee of international journals: Nature group: Nature, Scientific Reports; Physical Review: B, X, Letters; Superconducting Science and Technology; Applied Physics Letters.

*Assignments abroad*

2008-2009: Visiting Professor at the Florida State University

Since 2017 an elected member of the European Society for Applied Superconductivity (ESAS).

*Publication*

259 publications on international Journals;

5,953 citations;

Hirsh-Index 38.

## **Curriculum vitae**

### **Ornella Cavalleri**

#### *Biographical information and appointments*

Ornella Cavalleri earned her degree in Physics cum laude in 1992 at the University of Genova. She spent four years (1994-1997) in Switzerland for her doctoral studies at the Institute of Experimental Physics of the Federal Polytechnical School of Lausanne (PhD thesis: Ordering and electrodeposition at the alkanethiol/Au(111) interface, supervisor Prof K. Kern). After post-doctoral fellowships (1998-2000), she became researcher at the Department of Physics in Genova in 2000 and since 2012 she is Associate Professor of Applied Physics at the Physics Department of the University of Genova, Italy.

#### *Scientific profile*

Her research activity primarily deals with surface and interface physics with a focus on molecular self-assembly on surfaces, from organic to biological molecules. The main experimental methods used for the analysis of hybrid bio-interfaces are scanning probe microscopy, spectroscopic ellipsometry, X-ray photoemission spectroscopy, and electrochemical methods. Her recent activity is focused on the study of DNA self-assembly on gold for the development of DNA-based sensing platforms. Her experience on the structural and physical properties of biomolecular assemblies includes amino acid and protein layers, thiol-based self-assembled monolayers (SAMs) and photochromic polymer layers. She has also worked on protein misfolding and amyloid aggregation and on cell-polyelectrolyte hybrid systems, to investigate the effects of the polymer-cell matrix interaction in terms of cell viability and functionality. Her recent activity includes also the growth and molecular functionalization of transition metal oxides for the development of biomaterials for prosthetic implants. She participated to national research programs and to national and international collaborations on ultrathin bio-organic films and nanoscience topics.

Ornella Cavalleri is author of 90 research papers, guest editor of two special issues of Materials, she gave numerous oral presentations at international conferences.

#### *Conference organization*

She is member of the International Advisory Committee of the European Conference on Organised Films (ECOF). Ornella Cavalleri has been co-organizer and co-chair of the Molecular Bioimaging Section of the 2nd Scientific Conference of MOSBRI (Molecular-Scale Biophysics Research Infrastructure), held in Saragoza in June 2023. She co-chaired the 14th European Conference on Organised Films (ECOF14) held in Genova in 2015 and she participated to the organizing committee of the 7th European Biophysics Conference held in Genova in 2009.

#### *Awards*

In 2018 she has been awarded the “Edoardo Kramer” Prize of the Istituto Lombardo Accademia di Scienze e Lettere” for studies on molecular self-assembly.

#### *Service in scientific policy bodies*

Prof. Cavalleri is currently vice dean of the School for Physical, Mathematical and Natural Sciences of the University of Genova.

She has been member of the Collegio di Disciplina of the University of Genova.

She is member of the Commissione Paritetica di Scuola of the University of Genova and of the Commissione Didattica of the Physics Department of the University of Genova.

She has been member of the Commissione Ricerca and Commissione Programmazione of the Physics Department of the University of Genova.

She has served on various examination and selection panels at the local and national level, such as entry and final exam of the Ph.D. programs in physics in Genova and in other Italian Universities, and national competitions for researcher positions.

#### *Service as referee*

She serves as a referee for several journals in the field of biophysics, surface science physics and material science such as e.g. Biophysical Journal, ACS Applied Materials & Interfaces, Applied Surface Science, Physical Chemistry Chemical Physics and Langmuir. She is member of the Editorial Board of "Materials" and Associate Editor for "Frontiers in Materials".

#### *Teaching*

From 1998 to 2005 she has been assistant to Physics laboratory courses for Biology and Physics students at the University of Genova. From 2005 to 2008 prof. Cavalleri taught general physics for Architecture students and Experimental methods in Biophysics for Physics students at the University of Genova. Since 2009 she has been teaching fundamental physics and physics laboratory courses for Biology and Pharmaceutical Sciences students at the University of Genova; since 2016 she also teaches biophysics for physics students. Since 2019 she teaches a course on Biosensing for PhD students of the Physics and Nanoscience PhD Program at the University of Genova.

#### *Mentoring*

Prof. Cavalleri has been a tutor for 6 Ph.D. students, numerous master ("Laurea magistrale") and bachelor students.

# Curriculum Vitæ

## Michele Magnozzi

*Luogo e data di nascita:* -

*Residenza:* -

*Contatti* -

### Posizione attuale

- **Ricercatore a tempo determinato A (RTDA)** 2021 – *in corso*  
*Università degli Studi di Genova*

### Formazione

- **Dottorato di Ricerca in Scienze e Tecnologie della Chimica e dei Materiali, cum laude** 2019  
Curriculum in Scienza e Tecnologia dei Materiali, XXXI Ciclo  
*Università degli Studi di Genova*
- **Laurea Magistrale in Fisica, 110/110** 2015  
*Università degli Studi di Genova*

### Esperienze professionali

- **Assegnista di Ricerca** 2020–2021  
*Università degli Studi di Genova*
- **Assegnista di Ricerca** 2018-2020  
*Istituto Nazionale di Fisica Nucleare, Sezione di Genova*
- **Guest researcher** 2017 e 2018  
*Leibniz-Institut für Polymerforschung Dresden e.V., Dresda, Germania*
- **Guest researcher** 2016  
*Technische Universität Dresden, Dresda, Germania*
- **Assegnista di Ricerca** 2015-2016  
*Università degli Studi di Genova*
- **Stagista** 2013  
*Ansaldo Energia, Genova*



## Partecipazione a progetti scientifici

- **PRIN ERACLITO** (substitute-PI e responsabile di unità) 2023-in corso
- **Einstein Telescope** 2022-in corso
- **Collaborazione Virgo** 2021-in corso
- **Virgo Coating R&D Collaboration (VCRD)** 2019-in corso
- **STRATOS - MultiSTRATi 2D: Ottica di Sistemi Ultrasottili** 2018-2020
- **PanLab: Biosensoristica plasmonica per diagnostica precoce** 2016-2018
- **PRIN GRAF** 2015-2016

## Pubblicazioni e attività editoriale

Sono autore o coautore di **28 pubblicazioni peer-reviewed**.

- 1) **M. Magnozzi**, F. Bisio, G. Gemme, M. Granata, C. Michel, L. Pinard, M. Canepa. Detecting ultrathin ice on materials for optical coatings at cryogenic temperatures. *Journal of Physics D: Applied Physics*, 56, 475105, 2023.
- 2) M. Ferrera, A. Sharma, I. Milekhin, Y. Pan, D. Convertino, S. Pace, G. Orlandini, E. Peci, L. Ramò, **M. Magnozzi**, C. Coletti, G. Salvan, D.R.T. Zahn, M. Canepa, F. Bisio. Local dielectric function of hBN-encapsulated WS<sub>2</sub> flakes grown by chemical vapor deposition. *Journal of Physics Condensed Matter*, 35, 274001, 2023.
- 3) S. Normani, P. Bertolotti, F. Bisio, **M. Magnozzi**, F. F. Carboni, S. Filattiera, S. Perotto, F. Marangi, G. Lanzani, F. Scotognella, G.M. Paternò. Tamm plasmon resonance as optical fingerprint of silver/bacteria interaction. *ACS Applied Materials & Interfaces*, 15, 22750, 2023.
- 4) A. Amato, **M. Magnozzi**, N. Shcheblanov, A. Lemaître, G. Cagnoli, M. Granata, C. Michel, G. Gemme, L. Pinard, M. Canepa. Enhancing titania-tantala amorphous materials as high-index layers in Bragg reflectors of Gravitational-Wave Detectors. *ACS Applied Optical Materials*, 1, 395, 2023 (**co-first author**).
- 5) E. Peci, **M. Magnozzi**, L. Ramò, M. Ferrera, D. Convertino, S. Pace, G. Orlandini, A. Sharma, I. Milekhin, G. Salvan, C. Coletti, D.R.T. Zahn, F. Bisio, M. Canepa. Dielectric function of 2D tungsten disulfide in homo- and heterobilayer stacking. *Advanced Materials Interfaces*, 10, 2201586, 2023.
- 6) **M. Magnozzi**, A. Amato, N. Shcheblanov, A. Lemaître, G. Cagnoli, M. Granata, C. Michel, G. Gemme, L. Pinard, M. Canepa. Effects of mixing and annealing on the optical properties of TiO<sub>2</sub>:Ta<sub>2</sub>O<sub>5</sub> amorphous oxide coatings. *Optics InfoBase Conference Papers, Optical Interference Coating OIC2022*, 182861, 2022. (**co-first author**).
- 7) M. Ferrera, L. Ramò, D. Convertino, G. Orlandini, S. Pace, I. Milekhin, **M. Magnozzi**, M. Rahaman, D. R.T. Zahn, C. Coletti, M. Canepa, F. Bisio. Optical response of CVD-

- grown ML-WS<sub>2</sub> flakes on an ultra-dense Au NP plasmonic array. *Chemosensors*, 10, 120, 2022.
- 8) G. Favaro, M. Bazzan, A. Amato, F. Arciprete, E. Cesarini, A.J. Corso, F. DeMatteis, T.H. Dao, M. Granata, C. Honrado-Benitez, N. Gutiérrez-Luna, J.I. Larruquert, G. Lorenzin, D. Lumaca, G. Maggioni, **M. Magnozzi**, M. G. Pelizzo, E. Placidi, P. Proposito, F. Puosi. Measurement and simulation of mechanical and optical properties of sputtered amorphous SiC coatings. *Physical Review Applied*, 18, 044030, 2022.
  - 9) L. Wang, D. Zare, T. H. Chow, J. Wang, **M. Magnozzi**, M. Chergui. Disentangling light- and temperature-induced thermal effects in colloidal Au nanoparticles. *J. Phys. Chem. C*, 126, 3591, 2022.
  - 10) **M. Magnozzi**, T. Pflug, M. Ferrera, S. Pace, L. Ramò, M. Olbrich, P. Canepa, H. Agircan, A. Horn, S. Forti, O. Cavalleri, C. Coletti, F. Bisio, M. Canepa. Local optical properties of CVD-grown monolayer WS<sub>2</sub> flakes. *J. Phys. Chem. C*, 125, 29, 16059, 2021.
  - 11) P. O’Keeffe, D. Catone, L. Di Mario, F. Toschi, **M. Magnozzi**, F. Bisio, A. Alabastri, R. Proietti Zaccaria, A. Toma, G. Della Valle, A. Paladini. Disentangling the temporal dynamics of nonthermal electrons in photoexcited gold nanostructures. *Laser & Photonics Review*, 15, 2100017, 2021.
  - 12) S. Pace, M. Ferrera, D. Convertino, G. Piccinini, **M. Magnozzi**, N. Mishra, S. Forti, F. Bisio, M. Canepa, F. Fabbri, C. Coletti. Thermal stability of monolayer WS<sub>2</sub> in BEOL conditions. *Journal of Physics: Materials*, 4 024002, 2021.
  - 13) M. Ferrera, G. Della Valle, M. Sygletou, **M. Magnozzi**, D. Catone, P. O’Keeffe, A. Paladini, F. Toschi, L. Mattera, M. Canepa, F. Bisio. Thermometric calibration of the ultrafast relaxation dynamics in plasmonic Au nanoparticles. *ACS Photonics*, 7, 959, 2020.
  - 14) M. Ferrera, **M. Magnozzi**, M. Canepa, F. Bisio. Thermoplasmonics of Ag nanoparticles in a variable-temperature bath. *The Journal of Physical Chemistry C*, 124, 17204, 2020.
  - 15) **M. Magnozzi**, Y. Brasse, T. Koenig, F. Bisio, E. Bittrich, A. Fery and M. Canepa. *ACS Applied Nano Materials*, 3, 1674, 2020.
  - 16) **M. Magnozzi**, M. Ferrera, G. Piccinini, S. Pace, S. Forti, F. Fabbri, C. Coletti, F. Bisio, M. Canepa. Optical dielectric function of two-dimensional WS<sub>2</sub> on epitaxial graphene. *2D Materials*, 7, 025024, 2020.
  - 17) Y. Brasse, C. Ng, **M. Magnozzi**, H. Zhang, P. Mulvaney, A. Fery, D. E. Gómez. A tunable polymer-metal based anti-reflective metasurface. *Macromolecular Rapid Communications*, 41, 1900415, 2020.
  - 18) **M. Magnozzi**, R. Proietti Zaccaria, D. Catone, P. O’Keeffe, A. Paladini, F. Toschi, A. Alabastri, M. Canepa, F. Bisio. Interband transitions are more efficient than plasmonic excitation in the ultrafast melting of electromagnetically coupled Au nanoparticles. *The Journal of Physical Chemistry C*, 123, 16943, 2019.
  - 19) M. Ferrera, **M. Magnozzi**, F. Bisio, M. Canepa. Temperature-dependent permittivity of silver and implications for thermoplasmonics. *Physical Review Materials*, 3, 105201, 2019.

- 20) **M. Magnozzi**, M. Ferrera, L. Mattera, M. Canepa, F. Bisio. Plasmonics of Au nanoparticles in a hot thermodynamic bath. *Nanoscale*, 11, 1140, 2019.
- 21) **M. Magnozzi**, M. Ferrera, M. Canepa, F. Bisio. Monitoring the solid-state dewetting of densely packed arrays of Au nanoparticles. *Journal of Physics: Conference Series*, 1226, 012014, 2019.
- 22) **M. Magnozzi**, S. Terreni, L. Anghinolfi, M. Neri, I. Solano, M.M. Carnasciali, S. Uttiya, G. Gemme, M. Canepa. Optical properties of amorphous SiO<sub>2</sub>-TiO<sub>2</sub> multi-nanolayered coatings for 1064-nm mirror technology. *Optical Materials*, 75, 94-101, 2018.
- 23) P. Parisse, I. Solano, **M. Magnozzi**, F. Bisio, L. Casalis, O. Cavalleri, M. Canepa. Thickness and beyond. Exploiting spectroscopic ellipsometry and atomic force nanolithography for the investigation of ultrathin interfaces of biologic interest. Capitolo nel libro 'Ellipsometry of Functional Organic Surfaces and Films'. K. Hinrichs, K.-J. Eichhorn (editors), Springer 2018. *(non indicizzato su WoS)*
- 24) M. Agostini et al., The Monte Carlo simulation of the Borexino detector. *Astropart. Physics*, 97, 136-159, 2018.
- 25) S. Forti, A. Rossi, H. Buch, T. Cavallucci, F. Bisio, A. Sala, T. Montes, A. Locatelli, **M. Magnozzi**, M. Canepa, K. Mueller, S. Link, U. Starke, V. Tozzini, C. Coletti. Electronic properties of single-layer tungsten disulfide on epitaxial graphene on silicon carbide. *Nanoscale*, 9, 16412-16419, 2017.
- 26) F. Bisio, E. Principi, **M. Magnozzi**, A. Simoncig, E. Giangrisostomi, R. Mincigrucci, L. Pasquali, C. Masciovecchio, F. Boscherini, M. Canepa. Long-lived nonthermal electron distribution in aluminum excited by femtosecond extreme ultraviolet radiation. *Physical Review B Rapid Communication*, 96, 081119(R), 2017.
- 27) **M. Magnozzi**, N. Haghigian, V. Miseikis, C. Coletti, F. Bisio, M. Canepa. Fast detection of water nanopockets underneath wet-transferred graphene. *Carbon*, 118, 208-214, 2017.
- 28) **\*M. Magnozzi**, F. Bisio, M. Canepa. Solid-state dewetting of thin Au films studied with real-time, *in situ* spectroscopic ellipsometry. *Applied Surface Science*, 421, 651-655, 2017.

Come membro delle collaborazioni Virgo ed ET, sono inoltre coautore di circa 30 articoli su riviste internazionali peer-reviewed.

Svolgo attività di revisore per diverse riviste accademiche, tra cui: *Advanced Optical Materials* (Wiley), *Optical Materials* (Elsevier), *Applied Physics Letters* (AIP), *Thin Solid Films* (Elsevier), *Applied Surface Science* (Elsevier), *Applied Optics* (Optica).

## Attività didattica

- **Attività didattica come RTDA presso l'Università di Genova**

a.a. 2023/2024

- Corso di Ottica Applicata per il corso di laurea in Fisica.
- Corso di Laboratorio di Didattica della Fisica per il corso di Laurea Magistrale a ciclo unico in Scienze della Formazione Primaria.
- Corso di Laboratorio di Fisica dei Materiali per il corso di laurea in Scienze dei Materiali.

a.a. 2022/2023

- Corso di Ottica Applicata per il corso di laurea in Fisica.
- Corso di Laboratorio di Didattica della Fisica per il corso di Laurea Magistrale a ciclo unico in Scienze della Formazione Primaria.
- Corso di Laboratorio di Fisica dei Materiali per il corso di laurea in Scienze dei Materiali.

a.a. 2021/2022

- Corso di Laboratorio di Didattica della Fisica per il corso di Laurea Magistrale a ciclo unico in Scienze della Formazione Primaria.
- Corso di Laboratorio di Fisica dei Materiali per il corso di laurea in Scienze dei Materiali.
- Corso 'Optical Properties of Materials' per le Scuole di Dottorato in Fisica e Scienze dei Materiali.

- **Professore a contratto**

a.a. 2019/2020; 2020/2021

*Università degli Studi di Genova, DISFOR*

Corso di 'Laboratorio di Didattica della Fisica' per il corso di Laurea Magistrale a ciclo unico in Scienze della Formazione Primaria.

- **Assistente alla didattica**

a.a. 2016/2017

*Università degli Studi di Genova, DITEN, Scuola Politecnica*

Assistente al corso di 'Fisica Generale' per il corso di laurea in Ingegneria Navale.

## Attività di supervisione agli studenti

- **Co-supervisore di tesi di dottorato**

Stefano Colace, XXXVIII ciclo, Scienze e Tecnologia della Chimica e dei Materiali (2022-in corso)

Shima Samandari, XXXVIII ciclo, Fisica e Nanoscienze (2023-in corso)

- **Assistente all'attività di tesi di laurea**

Ermes Peci, L. M. in Fisica

2020-2021

Marzia Ferrera, L. M. in Scienze dei Materiali

2018

Andrea Mandich, L. T. in Scienze dei Materiali

2015

## Comunicazioni orali a conferenze e workshop

Speaker a oltre 25 conferenze e workshops internazionali, anche su invito. Selezione:

- *9<sup>th</sup> International Conference on Antennas and Electromagnetic Systems (AES2023)*, Torremolinos, Spagna, 05.-08.06. 2023.
- *1<sup>st</sup> International Workshop on Imaging Ellipsometry*, Mons University, Mons, Belgio, 12-14.09.2022.
- *Optical Interference Coatings Conference (OIC) 2022*, Whistler, British Columbia, Canada (online) , 19-24.06.2022.
- *9<sup>th</sup> International Conference on Spectroscopic Ellipsometry (ICSE-9)*, Beijing, Cina (online), 22-28.05.2022.
- *Graphene 2021*, Grenoble, Francia, 26.-29.10.2021.
- *META2020 – 11<sup>th</sup> International Conference on Metamaterials, Photonic Crystals and Plasmonics*, Varsavia, Polonia (online), 20-23.07.2021.
- *NANOP 2019 – Nanophotonics and Micro/Nano Optics International Conference*, Monaco di Baviera, Germania, 04.-06.09.2019.
- *PIERS 2019 - Photonics & Electromagnetics Research Symposium*, Roma, 17.-20.06.2019.
- *8<sup>th</sup> International Conference on Spectroscopic Ellipsometry (ICSE-8)*, Barcellona, Spagna. 26.-31.05.2019.
- *AVS 65<sup>th</sup> International Symposium and Exhibition*, Long Beach, USA, 21.-26.10.2018.

## Competenze linguistiche

- **Italiano:** Madre lingua
- **Inglese:** Ottima conoscenza della lingua inglese certificata dall'International English Language System (IELTS) con punteggio 8.0, equivalente al livello C1 CEFR.
- **Tedesco:** Conoscenza di base