

PERSONAL INFORMATION

MARIA PILAR MIRITELLO



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<https://scholar.google.it/citations?user=Kxe5qbEAAAAJ&hl=it>

Sex Female | Date of birth [REDACTED] Nationality Italian

WORK EXPERIENCE

From 01/01/23

Senior Researcher

CNR (National Research Council) – Institute for Microelectronics and Microsystems (IMM) –
Via S. Sofia, 64 – I-95123 Catania (ITALY)

from 16/12/2009 – to 31/12/2022

Researcher

CNR (National Research Council) – Institute for Microelectronics and Microsystems (IMM) –
Via S. Sofia, 64 – I-95123 Catania (ITALY)

Main activities and responsibilities

- Development of innovative nanostructured materials by synthesis control by physical methods; advanced structural, chemical and optical characterization of nanostructured materials; Applications fields: energy, photonics, environment.
- Grant proposal writing, Scientific publications writing
- Supervision of undergraduate and PhD students, Teaching
- Dissemination activities
- Responsible of the “Thin Film Laboratory” at CNR-IMM Catania Unit

from Jan. 2016 – to Dec. 2019

Researcher fellow

University of Catania, Department of Physics and Astronomy

Main activities and responsibilities

Research activities on the project “Synthesis and optical and structural characterization of novel materials for silicon-based optoelectronics” under the supervision of Prof. Francesco Priolo

from Nov. 2002 – to Nov. 2005

PhD Student in Materials Science

University of Catania

Main activities and responsibilities

Research activity on development of “*Er compounds for silicon microphotonics*” from design, synthesis, advanced structural and optical characterization and integration on optical devices

from June 2002 – to Jan. 2003

Scientific collaboration

University of Catania

Main activities and responsibilities

Project “Study of electrical, optical and structural properties of nanometric precipitates embedded in insulating matrix” at University of Catania, inside the Research Project named CLUSTER C26 “Synthesis, characterization and development of technologies for industrial application of innovative materials” financed by MURST under the supervision of Prof. Orazio Puglisi.

RESEARCH ACTIVITIES

Main research activities

Maria Miritello is currently leading research projects involving the development of innovative materials for the realization of advanced devices for photovoltaics, Si photonics, and environment. In particular, she engineered structural and optical properties by controlling thin films synthesis. Moreover, she was involved in their application on proper devices, such as electroluminescent devices, optical devices and solar cells. She is co-author of **115 scientific publications** (whose 87 on ISI international journals), that have received **2683 citations** with an h-index of **29** (Source: Scopus, 28/04/2025).

Publications

115 publications – h-index 29 – citations 2683 (source: Scopus, 28/04/2025)

<https://orcid.org/0000-0001-7957-6763>

<https://www.scopus.com/authid/detail.uri?authorId=6603118214>

Participation to international Conferences

- Several oral contributions in international conferences, whose 10 invited talks.

Honours and Awards

- 2018 ▪ IAAM, International Association of Advanced Materials, Scientist Medal 21/08/2018
As recognition for the relevance of the research carried out by the candidate in the field "Science of advanced materials and technology" during the EAMC conference (European Advanced Materials Congress) 2018
- From 2018 to 2030 ▪ National Scientific Qualifications for the role of Full Professor in 02/B1 "Experimental Physics of Matter" - 26/07/2018 – 26/07/2030

Organization of conferences

- 12 - 15 October 2014 "program committee member" for "9th Nanotechnology Materials and Devices Conference (IEEE-NMDC 2014) ad Aci Castello (CT) – Italy -
- 2 - 6 May 2016 - "principal organizer" of symposium M "Silicon compatible materials and devices for photonics and sensing" at international conference E-MRS Spring Meeting 2016 - France,
- 3 - 8 July 2016 - "program committee member" for "6th International Conference on NANOSTRUCTURES and nanomaterials Self-Assembly" at Giardini Naxos (ME)– Italy
- 20 - 23 August 2018 - "committee member" for *European Advanced Materials Congress (EAMC)* at Stockholm (Sweden) –
- 30 Sept. - 04 Oct. 2019 - "local committee member" for FisMat 2019 Catania – Italy –
- 25 – 27 Oct 2021 - "organizing committee member" for Congresso IMM 2021 Catania – Italy –
- 13 – 17 May 2024 - "organizing committee" of "1st IMM Doctoral School"
- 06 – 09 May 2025 - "Co-Chair" for 27th AIV Conference "Energy Transition and Environmental Sustainability: Materials, Processes and Devices for Research and Industrial Applications" – Torino – Italy -

Editorial boards

- Member of Editorial Board of scientific journals
- from March 2011 to Nov. 2017 - "International Scholarly Research Network ISRN Materials Science Bibliographic Information", ISSN: 2090-6099 (Online) doi:10.5402/MS. ISRN is a division of di Hindawi Publishing Corporation
- From Oct. 2013 to Today - "Coatings" (ISSN 2079-6412). Impact Factor: 2.881 (2020)
- November 2017 - Special issue for Journal of Luminescence (Elsevier), dedicated to papers of "*Symposium M: Silicon compatible materials and integrated devices for photonics and optical sensing*" at the international conference E-MRS Spring Meeting 2016, 2 - 6 May 2016 - Impact Factor: 3.599 (2020) - ISSN: 0022-2313
- 2020 - Special issue "*Nanomaterials Based on IV-Group Semiconductors*" in Nanomaterials (MDPI)- Impact Factor: 5.076 (2020) - ISSN 2079-4991

Teaching and Academic Responsibilities

- From 2011 to today ▪ Co-advisors for 12 theses:
4 Ph.D. thesis, 5 Master Degree theses. 3 Bachelor's degree theses
- From 2014 to 2018 ▪ Teaching "Materials and Nanostructures Laboratory" for Master Degree Course of University of Catania
- From 2018 to today Member of the Academic Board of the PhD in "*Scienza dei Materiali e Nanotecnologie*" - Università degli Studi di Catania – From XXXIV to XL CICLO -

Responsibilities

- From Jan. 2011_to today ▪ Laboratory Manager of “Thin Film Laboratory” at IMM-CNR Catania (Italy). The laboratory includes an Ultra High Vacuum Magnetron Sputtering and an Electron Beam Evaporator.
- From 2014 to Today ▪ Advisor for 4 Research Fellows
- From Apr. 2020 to today ▪ Member of examining boards for research fellow recruitment; for purchase of laboratory equipment; for inspection of laboratory equipment
- From 2017 to 2020 ▪ Member of Boards of Delegates for European Materials Research Society(E-MRS)
- From 2018 to Today ▪ Member of IMM Council
- 2022 ▪ Member of the Selection Board for “Supply and Installation of a “CLUSTER DI SISTEMA PLASMA ENHANCED CHEMICAL VAPOUR DEPOSITION” inside the project “BEYOND_NANO” - CUP: G66J17000350007
- 2023 ▪ Member of the Selection Board for “Supply and Installation of a “DEPOSITION SYSTEM FOR THIN FILMS FOR SOLAR CELLS” inside the project “BEYOND_NANO” - CUP: G66J17000350007
- 2023 ▪ Member of the Selection Board for “Supply and Installation of a “SPUTTERING DEPOSITION SYSTEM” inside the project “BEYOND_NANO” - CUP: G66J17000350007
- From 2025 to 2026 ▪ Executive Board Member of AIV

Projects

- From March 2010 to Sept. 2012 ▪ Responsible for the CNR-IMM inside the national PRIN project (prot. 2008YM2HR5_003) named “Scaling limits and materials engineering for phase change materials”.
- From March 2010 to Sept. 2012 ▪ Responsible for the CNR-IMM inside the national Calocube project “DEVELOPMENT OF HIGH ACCEPTANCE CALORIMETRY FOR EXPERIMENTS OF COSMIC RAYS IN SPACE” supported by National Institute for Nuclear Physics (INFN).
- From Jan. 2014 To Today ▪ Responsible for the CNR-IMM inside the project SHARPER (Sharing Researchers’ Passion for Evidences and Resilience) as a Marie Skłodowska-Curie actions.
- From 2018 to 2020 ▪ Responsible for the CNR-IMM inside the project Best4u (*Bifacial Efficient Solar cell Technology with 4 terminal architecture for Utility scale*) ARS01_00519 funded by PON «R&I» 2014-2020.
- From 2022 to Today ▪ Responsible for the CNR-IMM inside the European project Free-Hydrocells (Grant Agreement n. 101084261– CUP B53C22009570006.
- From 2023 to Today ▪ Responsible for the CNR-IMM inside the PRIN 2022 project “iRIDE” funded by the European Union - Next Generation EU, Mission 4, Component 2 – CUP B53D23002890006
- From 2022 to Today ▪ Partecipation.to Samothrace Project Ecosistema dell’Innovazione – ECS00000022 – funded by the European Union - Next Generation EU, Mission 4, Component 2 - CUP B63C22000620005

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According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV, in the context for which this declaration is made.

Catania, 28/04/2025

Signature

