

PERSONAL INFORMATION



Gino Sorbello

📍 University of Catania. Department of Electric, Electronics, and Computer Engineering
Viale Andrea Doria 6, 95125 - Catania
☎ 095 738 2351 📠 320 431 5488

✉ gino.sorbello@unict.it

🌐 <http://www.dieei.unict.it/faculty/gino.sorbello>

Enterprise	University	EPR
<input type="checkbox"/> Management Level	<input type="checkbox"/> Full professor	<input type="checkbox"/> Research Director and 1st level Technologist / First Researcher and 2nd level Technologist
<input type="checkbox"/> Mid-Management Level	<input checked="" type="checkbox"/> Associate Professor	<input type="checkbox"/> Level III Researcher and Technologist
<input type="checkbox"/> Employee / worker level	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator

WORK EXPERIENCE

November 2014 – present

Associate Professor

Università di Catania.

October 2002 – October 2014

Assistant Professor

Università di Catania.

January 2000 – January 2002

Fellow of CNR

CNR “Centro di Elettronica Quantistica e Strumentazione Elettronica” – Politecnico di Milano.
Research grant of the National Research Council under the “Progetto Finalizzato Madess II”.

December 1999 – March 2000

Visiting scientist

Optical Sciences Center (OSC), University of Arizona - Tucson - USA. Project “Design and fabrication of integrated active devices on novel glass substrates”.

EDUCATION AND TRAINING

February 2000

PhD degree in “Ingegneria Elettronica e delle Comunicazioni”

8

Politecnico di Milano -- PhD Thesis: “Erbium-Ytterbium solid-state lasers and amplifiers operating in the 1.5-micron wavelength region for applications to optical communications”

November 1996 – October 1999

PhD school at Politecnico di Milano

February 1996 – June 1996

Internship at “Gruppo Amplificatori Ottici ITALTEL” Unità Componenti Fotonici,

January 1996

MSc (“Laurea”) degree in Electronics Engineering.

Università di Catania – MSc Thesis: “Modello dell’amplificatore ottico ad Er^{3+} – Yb^{3+} in fibra e sua validazione sperimentale”, relatori il Prof. Paolo Laporta (Politecnico di Milano) e il Prof. Sebastiano Barbarino (Università degli Studi di Catania)

PERSONAL SKILLS

Mother tongue(s)

Italian

Other language(s)

English

RESEARCH and METRICS

Research

Research activities of Gino Sorbello span across various fields of electromagnetism: with particular interest in:

- optical amplifiers and single-mode solid-state lasers, integrated optics;
- compact planar antennas, ultra-broadband antenna design and characterization, antennas and antenna array synthesis;

- inverse problems and microwave imaging;
- microwave components, electromagnetic band gap devices;
- computational electromagnetism;
- electromagnetic wave propagation in magnetized plasmas for heating and diagnostics;
- ion sources and linear particle accelerators.

Metrics Gino Sorbello co-authored more than 130 research publications, including **75 articles** published in international peer reviewed journals indexed by ISI Web of Science and by SCOPUS. The **h-index** of Gino Sorbello is **22** according to scopus (23 according to scholar). Total number of citations is 1067 (SCOPUS); 1818 (Google Scholar)

Please see updated publication list, citations and h-index at:

<https://scholar.google.com/citations?user=s8ntAeYAAAAJ>

<https://www.scopus.com/authid/detail.uri?authorId=6701852646>

Research Projects

- **Principal investigator** of the experiment *DEMETRA (DiElectric and METallic Radiofrequency Accelerator)* dell'Istituto Nazionale di Fisica Nucleare (INFN) – National Scientific Commission 5 Technological, Interdisciplinary and Accelerators Physics. (June 2015 – December 2018; **300 k-euro**)
- **Scientific investigator for the University of Catania** in the project *SMART CONCRETE; SMART CITIES AND COMMUNITIES: "Development of high-performance, low-cost technologies and efficient systems for internal structural monitoring and for safety implementation of concrete civil constructions and buildings"*. (August 2013 – March 2018; University of Catania **190 k-euro**; total project **7.5 M-euro**)
- **Proposer**: PON Ricerca e Innovazione 2014-2020 - Attraction and International Mobility (AIM) – **Activity 3**: SNSI *Smart, Secure and Inclusive Communities*.

Participation in editorial committees and peer review activity

- Editorial Board Member: International Journal of Antennas and Propagation, Hindawi.
- Editorial Board Member: International Journal of RF and Microwave Computer Aided Engineering, Wiley.
- Referee for several international peer-referred journals including IEEE Transaction on Antennas and Propagation, IEEE Antennas and Propagation Magazine, IEEE Access.

PUBBLICATION

Publications

- S. C. Pavone, K. Ravichandran, P. Senthilnathan, B. Prasanna, L. Di Donato, O. Crisafulli, S. Radha, N. Prabagarane, G. Sorbello. «Comparative analysis of machine learning and physics-based optimizations of a dual circularly polarized antenna for V2X applications». In: *Int J Electron Commun*, 142, (2021) pp.153994
- S. C. Pavone, G. Sorbello and L. Di Donato. «Improving Physical Optics Approximation Through Bessel Beam Scattering». In: *IEEE Antennas and Wirel. Propag. Lett.* 20.6 (2021), pp. 993–997
- H. Govindarajan, S. C. Pavone, L. Di Donato, P. Di Mariano, G. Distefano, P. Livreri, N. Prabagarane, C. Squadrito and G. Sorbello. «Design of a Compact Dual Circular Polarized Antenna for L-Band Satellite Applications». In: *IEEE Antennas and Wirel. Propag. Lett.* 19.4 (2020), pp. 547–551
- G. Torrisi, A. Locatelli, GS Mauro, M. Bellettato, L. Celona, F. Mancarella, C. De Angelis and G. Sorbello. «Design and Characterization of a Silicon W-Band Woodpile Photonic Crystal Waveguide». In: *IEEE Microw. Wirel. Compon. Lett.* 30.4 (2020), pp. 347–350
- L. Grasso, G. Sorbello, E. Ragonese e G. Palmisano. «Codesign of Differential Drive CMOS Rectifier and Inductively Coupled Antenna for RF Harvesting». In: *IEEE Trans. Microw. Theory. Tech.* (2020).
- F. Morabito, A. Di Carlo, L. Di Donato, T. Isernia and G. Sorbello. «Extending Spectral Factorization to Array Pattern Synthesis Including Sparseness, Mutual Coupling, and Mounting-Platform Effects». In: *IEEE Trans. Antennas Propag.* 67.7 (2019), pp. 4548–4559.
- L. Di Donato, A. F. Morabito, G. Torrisi, T. Isernia and G. Sorbello. «Electromagnetic Inverse Profiling for Plasma Diagnostics via Sparse Recovery Approaches». In: *IEEE Trans. Plasma Sci.* 47.4 (2019), pp. 1781–1787.
- C.A. Di Carlo, L. Di Donato, G.S. Mauro, R. La Rosa, P. Livreri and G. Sorbello. «A circularly polarized wideband high gain patch antenna for wireless power transfer». In: *Microw. Opt. Technol. Lett.* 60.3 (2018), pp. 620–625.
- G. Castorina, L. Di Donato, A. F. Morabito, T. Isernia e G. Sorbello. «Analysis and Design of a Concrete Embedded Antenna for Wireless Monitoring Applications» [Antenna Applications Corner]. In: *IEEE Antennas Propag. Mag.* 58.6 (2016), pp. 76–93.