

PERSONAL INFORMATION

Oscar Antonio PEVERINI

Consiglio Nazionale delle Ricerche
Istituto di Elettronica e di Ingegneria dell'Informazione e delle Telecomunicazioni
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- Web of Science ID: AAX-4104-2020
- Scopus ID: 6701819657

Enterprise	University	EPR
<input type="checkbox"/> Management Level	<input type="checkbox"/> Full professor	<input checked="" type="checkbox"/> Research Director
<input type="checkbox"/> Mid-Management Level	<input 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

Italian National Academic Sector (SSD): ING-INF/02 – Electromagnetic Fields
ERC research sector: PE7_6 – Communication Technology, High-Frequency Technology

WORK EXPERIENCE

01/2021 – present

Director of Research

Consiglio Nazionale delle Ricerche (CNR) – Istituto di Elettronica e di Ingegneria dell'Informazione e delle Telecomunicazioni (IEIIT) (Italy)

- President of the Evaluation Board for the R&D projects submitted in the ICT area within the calls of the “Fund for Sustainable Growth” programme of the Italian Ministry of Economic Development – MI.S.E (03/2018 – 10/2021)
- Member of the management board of the CNR-IEIIT institute (01/2016 – 02/2024)
- Coordinator of the scientific committee for the Research Area “ICT System and Devices” of the CNR-DIITET department (04/2014 – 12/2018)
- Member of the scientific committee for the Research Area “Technologies for Aerospace and Earth Observation” of the CNR-DIITET department (04/2014 – 12/2018)
- CNR-IEIIT representative at the national “SPIN-IT Space Innovation in Italy” platform (10/2011 – 12/2013)
- Coordinator of the Applied Electromagnetics & Electronic Devices group (04/2009 – present)
- Responsible for the Microwave and Millimeter-wave laboratory (04/2009 – present)
- Manager for research projects in the Space sector concerning the scientific domains: i) RF Subsystems, Payloads and Technologies, ii) Electromagnetic Technologies and Techniques. (04/2009 – present)

Research areas:

- Satellite Telecommunications
- Radiometric Sensors for Earth Observation and Space Science
- Design and Testing of Microwave and Millimeter-wave Passive Systems
- Advanced Manufacturing Technologies for Space-borne Payloads

01/2015 – present

Research Associate

Agenzia Spaziale Italiana (ASI) (Italy)

- Unit and work-package manager within ASI-funded projects and missions (06/2011 – present)
- Member of the national harmonization group on “EC H2020/Horizon Europe Programme – Space Segment” coordinated by ASI (11/2014 – 12/2018)

- 01/2007 – 12/2020 **Senior Researcher**
Consiglio Nazionale delle Ricerche (CNR) – Istituto di Elettronica e di Ingegneria dell'Informazione e delle Telecomunicazioni (IEIIT) (Italy)
- 12/2001 – 12/2006 **Researcher**
Consiglio Nazionale delle Ricerche (CNR) – Istituto di Elettronica e di Ingegneria dell'Informazione e delle Telecomunicazioni (IEIIT) (Italy)
- 01/1998 – 10/2011 **Academic assistant and Lecturer in Electromagnetics and Numerical Computation**
Politecnico di Torino (Italy)

EDUCATION AND TRAINING

- 05/2020 – 05/2032 **Italian National Scientific Qualification for Full-Professor in the sector 09/F1 - Electromagnetic Fields**
Ministry for University and Research (Italy)
- 02/2001 – 12/2001 **Research Fellow**
Consiglio Nazionale delle Ricerche (CNR) – Istituto di di Ricerca sull'Ingegneria delle Telecomunicazioni e dell'Informazione (IRITI) (Italy)
Development of microwave and millimeter-wave subsystems
- 02/2001 – 12/2001 **Research Fellow**
Politecnico di Torino – Department of Physics (Italy)
Modeling of liquid-crystal devices
- 10/1999 – 09/2000 **Guest scientist**
Universitat Gesamthochschule Paderborn (Germany)
Analysis, design and experimental characterization of acousto-optical devices
- 01/1998 – 03/2000 **Ph.D. Degree in Electronics and Communication Engineering**
Politecnico di Torino – Department of Electronics and Telecommunications (Italy)
Ph.D. thesis: "Saw waveguides and transducers for acousto-optical devices"
- 09/1991 – 07/1997 **Laurea Degree in Telecommunication Engineering (summa cum laudae)**
Politecnico di Torino (Italy)
Thesis: "Analysis of piezoelectric transducers"

WORK ACTIVITIES

- Main projects**
- Scientific or project manager for CNR-IEIIT unit:
- SpaceltUp!. ASI call "Attività Spaziali" (31/07/2024 – 31/01/2027)
 - "Sardinia Radio Telescope – Earth, Moon, Mars (SRT-EMM)". PNRR Missione 4, "Istruzione e Ricerca" – Componente 2, "Dalla ricerca all'impresa" - Linea di investimento 3.1, "Fondo per la realizzazione di un sistema integrato di infrastrutture di ricerca e innovazione" (01/01/2023 – 31/12/2025)
 - "Development of high-accuracy millimeter-wave components through lithography metal manufacturing (LMM)". ESA call nr. ESAAO/2-1772/20/NL/GLC of the "Discovery Element" programme (05/2021 – 11/2022)
 - "Copernicus HPCM (High Priority Candidate Missions) CIMR (Copernicus Imaging Microwave Radiometer) - Phases B2, C/D and E1 (prototype and recurrent satellites)". European Commission/ESA call nr. RFP/1-10059/19/NL/AI of the "Copernicus Space Component Expansion" European program (11/2020 – 09/2024)
 - "Radio-Frequency (RF) feeds with integrated RF, mechanical and thermal functions". ESA call nr.

	<p>AO/1-10026/19/UK/AB of the “Advanced Research in Telecommunications Systems (ARTES)” program (10/2020 – 12/2022)</p> <ul style="list-style-type: none"> ▪ “On-board feed chain for combined Q, V-band feeder and Ka-band user links”. ESA call nr. AO/1-10026/19/UK/AB of the “Advanced Research in Telecommunications Systems (ARTES)” program. (10/2020 – 10/2022) ▪ “Evaluation and consolidation of Additive Manufacturing processes and materials for the manufacturing of RF hardware”. ESA call nr. AO/1-9376/18/NL/HK of the “General Support Technology Programme (GSTP)” program (10/2019 – 06/2022) ▪ “MetOp-SG MicroWave Imager (MWI) Instrument – On Ground Support Equipment (OGSE)”. ESA call nr. AO510027 of the “MetOp Second Generation Space Segment Development Programme (MetOp-SG)” program (07/2018 – 07/2021) ▪ “Phase A/B1 of Passive Microwave Imaging Mission (CIMR)”. ESA call nr. AO/1-9186/17/NL/AI of the EU “Copernicus Space Component Expansion” program (04/2018 – 12/2020) ▪ “Pre-aligned non-intrusive Ku-band direct-to-home antenna using advanced manufacturing”. ESA call nr. AO/1-8920/2017/NL/WE of the “Advanced Research in Telecommunications Systems (ARTES)” program (09/2018 – 05/2021) ▪ “3D screen printing of high frequency components”. ESA call nr. AO/1-8876/17/NL/CRS of the “Innovation Triangle Initiative (ITI)” program (06/2018 – 12/2020) ▪ “Large Scale Polarization Explorer”. Italian national mission ASI no. 09/046 (06/2011 – 03/2026) ▪ no. 11 research contracts with Thales Alenia Space for SatCom systems from 5 GHz to 50 GHz (2007 – 2017) ▪ no. 3 research contracts with the Italian National Institute of Astrophysics (INAF) for scientific instrumentation for radio-astronomy (2013 – 2016)
Tutoring activities	<ul style="list-style-type: none"> ▪ Co-supervisor of no. 1 Ph.D. student in Space Science and Technology - National PhD Program – Università di Trento (2024 – present) ▪ Co-supervisor of no. 2 Ph.D. students in Electronic and Communication Engineering at Politecnico di Torino (2011 – present) ▪ Supervisor of no. 6 research fellows in Applied Electromagnetics at CNR-IEIT (2009 – present) ▪ Co-supervisor of no. 13 Laurea Degree Thesis in Electromagnetic Fields at Politecnico di Torino (1999 – present)
Awards	<ul style="list-style-type: none"> ▪ Second price at EuMA best paper contest (05/2022) ▪ Commendation from the Director-General of CNR for the activities carried out as the President of the Evaluation Board for the R&D projects submitted in the ICT area within the calls of the “Fund for Sustainable Growth” programme of the Italian Ministry of Economic Development – MI.S.E. (07/2019) ▪ “Ulrich L. Rohde” best paper award at 2018 IEEE Conference on Antenna Measurements & Applications Conference (09/2018) ▪ CNR Prize “Risultati di Rilevanza Strategica o di Eccellenza per l’Anno 2005” (10/2009) ▪ “Barzilai” best young-researcher paper award at XIII RiNEm (09/2000)
Editorial activity	<ul style="list-style-type: none"> ▪ Guest Editor for the special issue “Additive Manufacturing of Radio-Frequency Components” published in Proceedings of IEEE (01/2016 – 04/2017)
Invited presentations	<ul style="list-style-type: none"> ▪ 2022 European Microwave Conference (invited key-note speech) ▪ 2019 European Conference on Antennas and Propagation ▪ 2018 IEEE Conference on Antenna Measurements & Applications ▪ 2018 IEEE MTT-S International Microwave Workshop Series on Advanced Materials and Processes ▪ 2018 IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting ▪ 2017 IEEE MTT-S International Microwave Workshop Series on Advanced Materials and Processes for RF and THz Applications ▪ 2017 European Conference on Antennas and Propagation ▪ 2016 European Conference on Antennas and Propagation ▪ 2015 IEEE International Symposium on Antennas and Propagation and USNC/URSI National Radio Science Meeting ▪ 2014 IEEE Antennas and Propagation Society International Symposium ▪ 2013 Electromagnetics Research Symposium ▪ 2012 IEEE International Symposium on Antennas and Propagation and USNC/URSI National Radio Science Meeting ▪ 2012 IEEE-APS Topical Conference on Antennas and Propagation in Wireless Communications

- Patents**
- European patent no. EP1956677 entitled "High Integrable Flat Antenna for Satellite Video Receiving" (12/2010)
 - European patent no. EP1763102 entitled "A Waveguide Correlation Unit and a Method for its Manufacturing" (07/2013)
 - European patent no. EP1729101 entitled "Method and Apparatus for Detecting the Level of a Molten Metal in a Container and the Depth of Slag Floating on it" (09/2008)

ADDITIONAL INFORMATION

Publications Total number of publications in peer-review journals: 75
Total number of citations (Scopus): 2098
H index (Scopus): 26

Ten relevant publications:

- P1. M. Brogioni, A. V. Bosisio, A. Lapini, G. Macelloni, G. Addamo, G. Virone, W. Di Nicolantonio, M. Grilli and **O. A. Peverini**, "Preliminary Studies on CIMR Antenna Pattern Brightness Temperature Compensation," *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, vol. 15, pp. 173-183 (Nov. 2021)
- P2. G. Addamo, G. Virone, M. Lumia, B. Fiorelli, G. Dassano, M. Grilli, **O. A. Peverini**, "Dual-Band Piecewise-Linear Profile Feed-Horns for the Copernicus Imaging Microwave Radiometer Mission," *IEEE Antennas and Wireless Propagation Letters*, vol. 20(11), pp. 2105-2109 (Nov. 2021)
- P3. F. Paonessa, G. Virone, L. Ciorba, G. Addamo, M. Lumia, G. Dassano, M. Zannoni, C. Franceschet and **O. A. Peverini**, "Design and Verification of a Q-Band Test Source for UAV-Based Radiation Pattern Measurements," *IEEE Transactions on Instrumentation and Measurement*, vol. 69(12), pp. 9366-9370 (Dec. 2020)
- P4. G. Addamo, **O. A. Peverini**, F. Calignano, D. Manfredi, F. Paonessa, G. Virone and G. Dassano, "3-D Printing of High-Performance Feed Horns from Ku- to V-Bands," *IEEE Antennas and Wireless Propagation Letters*, vol. 17(11), pp. 2036-2040 (Nov. 2018)
- P5. **O. A. Peverini**, M. Lumia, F. Calignano, G. Addamo, M. Lorusso, E. P. Ambrosio, D. Manfredi, G. Virone, "Selective Laser Melting Manufacturing of Microwave Waveguide Devices", *Proceedings of the IEEE*, Vol. 105(4), pp. 620-631 (Apr. 2017)
- P6. **O. A. Peverini**, G. Addamo, R. Tascone, G. Virone, P. Cecchini, R. Mizzoni, F. Calignano, E. P. Ambrosio, D. Manfredi and P. Fino, "Enhanced Topology of -Plane Resonators for High-Power Satellite Applications", *IEEE Transactions on Microwave Theory and Techniques*, Vol. 63(10), pp. 3361 - 3373 (Oct. 2015).
- P7. G. Virone, **O. A. Peverini**, M. Lumia, M. Z. Farooqui, G. Addamo, and R. Tascone, "W-Band Orthomode Transducer for Dense Focal-Plane Clusters", *IEEE Microwave and Wireless Components Letters*, Vol. 25(2), pp. 85-87 (Feb. 2015).
- P8. G. Virone, A. M. Lingua, M. Piras, A. Cina, F. Perini, J. Monari, F. Paonessa, **O. A. Peverini**, G. Addamo, and R. Tascone, "Antenna Pattern Verification System Based on a Micro Unmanned Aerial Vehicle (UAV)", *IEEE Antennas and Wireless Propagation Letters*, Vol. 13, pp. 169-172 (2014).
- P9. G. Virone, **O. A. Peverini**, M. Lumia, G. Addamo, and R. Tascone, "Platelet Orthomode Transducer for Q-Band Correlation Polarimeter Clusters", *IEEE Transactions on Microwave Theory and Techniques*, vol. 62(7), pp. 1487-1494, (Jul. 2014)
- P10. **O. A. Peverini**, G. Virone, G. Addamo, and R. Tascone, "Development of Passive Microwave Antenna-feed Systems for Wide-band Dual-polarisation Receivers", *IET Microwaves, Antennas and Propagation*, vol. 5(8), pp. 1008-1015, (Jun. 2011).

Personal data 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

Date: Torino, 26 February 2025

Signature: Oscar Antonio Peverini



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