

EDUCATION

- 1999 Laurea degree in Electronic Engineering (equivalent to MS degree) summa cum laude by Second University of Naples, Italy.
- 2003 Ph.D. in Electronic Engineering, Department of Information Engineering, Second University of Naples, Italy.

EMPLOYMENT

2018-present Associate professor, Department of Engineering, University of Campania.
2014-2017 Associate professor, Department of Industrial and Information Engineering, Second University of Naples.
2006-2014 Assistant professor, Department of Industrial and Information Engineering, Second University of Naples.
2002-2006 Assistant professor, Department of Informatics, Mathematics, Electronic and Transportation, University Mediterranea of Reggio Calabria, Italy.
2000 Research fellowship, Department of Information Engineering, Second University of Naples.
2000 Research fellowship, Department of Electronic Engineering, University Federico II of Naples.

DIDACTIC

- Lecturer activities at university
2015-present "Microwave circuits" (BS degree).
2013-present "Medical and radar imaging" (MS degree).
2010-2014 "Microwave Engineering" (MS degree).
2008-2010 "Laboratory of Electromagnetic Fields and Microwaves" (BC degree).
2007-2008 "Antennas" (BC degree).
2004-2010 "Microwave Circuits" (BC degree).
2002-2004 "Remote Sensing" (5 years laurea degree).
2002-2007 "Electromagnetic Field Theory" (MS degree).
- Lecturer activities in courses and masters post laurea degree
2015 "Array synthesis", TELEMACO project, MBDA company.
2014 "Foundations of Electronic Engineering", UNICON project.
2013 "GPR Image Processing", PON NARMA, SELEX SI company.
2004-2005 "Radar Techniques", MBDA company.
2003-2004 "Non-Destructive Diagnostic Methods", PON TEMPES.
2002-2004 "Electromagnetic Compatibility", II Level Master in Environmental Engineering.
2001-2002 "Foundation of Electromagnetic Propagation", IFTS Campania 12.
- Mentorship
Supervisor of more than 90 theses (BC and MC) in Applied Electromagnetics.
Supervisor of the PhD students:
Aniello Buonanno, 2005-2008, thesis: Localization and Shape Reconstruction of 3D PEC Objects;
Claudio Mola, 2008-2011, thesis: Inverse Problem for Electric and Magnetic Sources;
Andrea Baratonio, 2008-2011, thesis: Through Wall Imaging by Inverse Scattering;
Antonietta D'alterio, 2009-2012, thesis: A Background characterization procedure in Subsurface Microwave Imaging;
Luigi Castaldo, 2009-2013, thesis: SHARAD Data Inversion and Calibration over Mars;
Angela Dell'Aversano, 2011-2014, thesis: Migration, Inversion and MUSIC Algorithms in Electromagnetic Diagnostic Imaging;
Antonio Cuccaro, 2012-2015, thesis: Electromagnetic Diagnostic Imaging: Towards Breast Cancer Early Detection;
Maria Antonia Maisto, 2012-2015, thesis: Metric Entropy and NDF of Radiated and Scattered Fields via SVD.
Andrea Natale 2014-2017, thesis: MUSIC algorithms for vital signs detection and near zone diagnostics.
Giovanni Buonanno 2015-2018, thesis: New findings in random array antennas
- Academic Appointments
2012 Member of the final exam commission for the PhD in Electronic Engineering, University of

Reggio Calabria.

Member of commission for several post-doctoral awards.

2007-2017 Member of the didactic board of the PhD course in Electronic Engineering, University of Campania.

2005 Member of the admission committee for the PhD course in Electronic Engineering, University of Reggio Calabria.

2005-2006 Member of the didactic board of the PhD course in Informatics, Biomedics and Telecommunications Engineering, University of Reggio Calabria.

SCIENTIFIC ACTIVITIES

- Scientific interests

Electromagnetic inverse source and inverse scattering problems; Electromagnetic field information content; GPR prospecting; TWI imaging; Breast cancer detection by microwaves; Vital sign detection, Random Arrays.

- Referee activities

- o IEEE Transactions on Geosciences and Remote Sensing, IEEE Geosciences and Remote Sensing Letters, IEEE Transactions on Antennas and Propagation, IEEE Antennas and Wireless Propagation Letters, IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, IEEE Transactions on Aerospace and Electronic Systems, IEEE Communication Letters, IEEE Transactions on Image Processing, IEEE Sensors Journal, IEEE Transactions on Computational Imaging, IEEE Transactions on Ultrasonics, Ferroelectrics and Frequency Control, IET Microwaves, Antennas & Propagation, Inverse Problems, Journal of Inverse and Ill-Posed Problems, Electronics Letters, Sensors, Journal of Electromagnetic Waves and Applications, Progress in Electromagnetic Research, International Journal of Antennas and Propagation, Near Surface Geophysics, Optics Communications, Applied Optics, Applied Mathematical Sciences, The Open Optics Journal, International Journal for Light and Electron Optics, Results in Physics, International Journal for Numerical Methods in Biomedical Engineering, International Journal of Remote Sensing, Remote Sensing, International Journal of Geophysics, Geophysical Prospecting, Nondestructive Testing and Evaluation, Journal of Geophysical Engineering, Measurement Science and Technology, Applied Mathematics and Computation, Applied Mathematical Letters, Mathematical Problems in Engineering, ETRI Journal, Journal of Electronic Imaging, The European Journal of Physics, Algorithms, Optica, Wave Motion.

- o Italian Ministry of Research and University.

- o Research proposal reviewer for Research Grant Council (RGC) of Hong Kong.

- o COST actions' reviewer for EU.

- Editorial roles

2012 Associate Editor special issues "Non-invasive Sensing Techniques 2012" International Journal of Geophysics.

2014-present Associate Editor for: International Journal of Antennas and Propagation and Mathematical Problems in Engineering.

- Conference chairman and session organization

2009 Chairman of session 29, Inverse scattering and remote sensing, at International Conference on Electromagnetics in Advanced Applications, Turin, Italy.

2011 Chairman of session 38, Inverse scattering and remote sensing, at International Conference on Electromagnetics in Advanced Applications, Turin, Italy.

2013 Chairman of session 44, Microwave and multimodal imaging techniques in medical applications, at International Conference on Electromagnetics in Advanced Applications, Turin, Italy.

2014 Co-organizer of session SC5: Microwave Imaging: Detection, Localization and Profiling, at PIERS 2014, Guangzhou, China.

2015 Co-organizer of session 33 Electromagnetic Fields in Biomedical Imaging And Therapeutics: Methodologies And Applications (Mimed and Emf-Med), at International Conference on Electromagnetics in Advanced Applications, Turin, Italy.

2015 Co-organizer and chairman of session 310b Inverse Scattering. Imaging and Applications, at PIERS 2015, Prague, Czech Republic.

2016 Co-organizer and chairman of the special session Inverse Scattering and Imaging, The 4-th

Advanced Electromagnetic Symposium, Malaga, Spain.

2016 Chairman of session 8: Antenna design and measurement, RINEM 2016, Parma, Italy.

2017 Co-organizer and chairman of session 4A3: Inverse Problems and Imaging, at PIERS 2017, San Petersburg, Russia.

2017 Chairman of session 21 Inverse scattering and remote sensing, at International Conference on Electromagnetics in Advanced Applications, Verona, Italy.

2018 Chairman of session 4P6a Inverse Problems in Microwaves and Optics, Toyama, Japan.

- Invited talks and visiting

2010 Migration versus Inversion, Second University of Naples.

2013 Radar Imaging Applications: from Far- to Near-zone, CTVR, Trinity College of Dublin, Dublin.

2012 Visiting researcher at DIT, Dublin (from September to October).

2013 Microwave imaging: State of the art and open challenges," DIT, Dublin.

2013 Visiting researcher at DIT, Dublin (from September to October).

2015 Microwave Imaging: any news from Plato?, Second University of Naples.

2015 Visiting researcher at DIT, Dublin (from June to July).

2017 Balancing resolution improvement and artifacts in back-propagation reconstructions for a host medium having point-like inhomogeneities, ICEAA 2017.

2017 Information content, NDF and resolution in linear inverse problems, IMWS-AMP2017.

- Research Fellowships and Projects

2000 Research fellowship at Dipartimento di Ingegneria Elettronica, Università degli Studi di Napoli Federico II on "Depth resolving power in Fresnel zone ".

2000 Research fellowship at Dipartimento di Ingegneria dell'Informazione, Seconda Università di Napoli, on "Resolution in linear tomographic reconstructions".

2000 A portable sensor for the electromagnetic diagnostic of monuments, Agenzia- 2000, funded by the Italian Consiglio Nazionale della Ricerca (CNR) (Member of the research team).

2000-2006 Innovative Technologies and Materials for Historic Building Preservation, PON-TEMPES, funded by Italian Ministry of University and Research (Member of the research team).

2001 COSMO-SKYMED –Techniques for extracting information from multi-pass data, funded by Agenzia Spaziale Italiana, (Member of the research team).

2001 Analysis of the resolution in tomographic reconstructions, Young Research grant, funded by Italian Ministry of University and Research (Principal Investigator).

2005-2007 Development of a microwave sensor for life sign detection and monitoring, PRIN 2005, funded by Italian Ministry of University and Research (Member of the research team).

2008-2009 Development of a novel method for through-wall imaging, funded by the European Office of Aerospace Research Development (EOARD) (Principal Investigator).

2012-2015 D-BOX – Demining ToolBox EU Mine Action research Project, FP-7 funded by EU (Member of the research team).

2013-2018 Microwave Imaging for Combined Early Diagnostics of BrEaSt CANcer (MICENEA) FIRB 2012, funded by Italian Ministry of University and Research (Principal Investigator).

2013-2017 COST action TD1301: Development of a European-based Collaborative Network to Accelerate Technological, Clinical and Commercialisation Progress in the Area of Medical Microwave Imaging (MC substitute).

2013-2017 COST Action TU1208: Civil Engineering applications of ground penetrating radar (leader of the WG 3.2).

Microwave Imaging via Tomography (MIT) CUP B13D18000100007, funded by Regione Campania (Principal Investigator).

HT - Head Tomography: New diagnostic microwave for head diseases - CUP: B13D18000150007, funded by Regione Campania (Principal Investigator).

- Publications

Author of more than 200 scientific works.