

REMOTE SENSING MODELS AND METHODS TO SUPPORT SUSTAINABLE DEVELOPMENT AND DISASTER MANAGEMENT

Remote sensing instruments - equipped on board of satellites, space shuttles, aircrafts, drones, etc., and operating at optical, infrared and microwave frequencies – provide routinely an unprecedented amount of information about the observed scene. Availability of such information can be exploited to boost data-driven environment control and management, aimed at sustainability, transparency and efficiency. This special session aims at stimulating discussions on models and methods that allow an intelligent processing of remotely sensed measurements to generate added-value products in the context of sustainable development and disaster management. Expected applications include (but are not limited to): natural hazard prevention, early warning and mitigation; vulnerability and risk analyses; land use mapping; safe and sustainable maritime traffic; etc.

Antonio Iodice

Dipartimento di Ingegneria Elettrica e delle Tecnologie dell'Informazione, Università degli Studi di Napoli Federico II, via Claudio 21, 80125 Napoli, Italy

iodice@unina.it

Short Curriculum Vitae

Antonio Iodice was born in Naples, Italy, in 1968. He received the Laurea Degree “cum laude” in Electronic Engineering and the Ph.D. degree in Electronic Engineering and Computer Science, both from the University of Naples "Federico II", Naples, Italy, in 1993 and 1999, respectively.

In 1995 he was with the Research Institute for Electromagnetism and Electronic Components of the Italian National Council of Research (IRECE-CNR), Naples, Italy, and from 1999 to 2000 with Telespazio S.p.A., Rome, Italy. From 2000 to 2004 he was a Research Scientist at the Department of Electronic and Telecommunication Engineering of the University of Naples "Federico II".

He is Professor of Electromagnetics at the Department of Electrical Engineering and Information Technology of the University of Naples "Federico II" since 2005.

He has been involved as Principal Investigator or Co-Investigator in several projects funded by European Union (EU), Italian Space Agency (ASI), Italian Ministry of Education and Research (MIUR), Campania Regional Government, and private companies.

His main research interests are in the field of microwave remote sensing and electromagnetics: modelling of electromagnetic scattering from natural surfaces and urban areas, simulation and processing of synthetic aperture radar (SAR) signals, and electromagnetic propagation in urban areas. Prof. Iodice is author or coauthor of more than 300 papers, of which more than 80 published on refereed journals, and the others on proceedings of international and national conferences. He received the “2009 Sergei A. Schelkunoff Transactions Prize Paper Award” from the IEEE Antennas and Propagation Society, for the best paper published in 2008 on the *IEEE Transactions on Antennas and Propagation*. He was recognized by the IEEE Geoscience and Remote Sensing Society as a 2015 Best Reviewer of the *IEEE Transactions on Geoscience and Remote Sensing*.

He is IEEE Senior Member, and the Chair of the *IEEE South Italy Geoscience and Remote Sensing Chapter*.

Ferdinando Nunziata

Dipartimento di Ingegneria, Università degli Studi di Napoli Parthenope, Centro Direzionale, isola C4 – 80143 Napoli, Italy

Ferdinando.nunziata@uniparthenope.it

Short Curriculum Vitae

Ferdinando Nunziata was born in Italy, in 1982. He is IEEE Senior Member since 2014. Since 2010, he has been an Assistant Professor in electromagnetic fields with the Università degli Studi di Napoli Parthenope. Since 2013, he has been a Guest Professor with the Shanghai Ocean University (SHOU), Shanghai, China. He has authored/co-authored

more than 50 peer-reviewed journal papers on applied electromagnetics. His main research interests include electromagnetic modeling, single- and multi-polarization sea surface scattering, radar polarimetry, synthetic aperture radar sea oil slick and metallic target monitoring, spatial resolution enhancement techniques, and Global Navigation Satellite System-Reflectometry (GNSS-R).

Dr. Nunziata was in the Organizing Committee of the 2008, 2010, 2012, 2014, 2016 IEEE Young Professionals Conference on Remote Sensing (formerly GOLD) and the International Geoscience and remote Sensing Symposium (IGARSS) 2015 held in Milan. He is a Young Professional representative to the GRSS (Geoscience and Remote Sensing Society) AdCom and to the IEEE Italy Section.