EUROPEAN CURRICULUM VITAE FORMAT

PERSONAL INFORMATION

Name	**GERARDO DI MARTINO**

WORK EXPERIENCE

• Dates	16/12/2019 – present
• Name and address of employer	UNIVERSITY OF NAPLES FEDERICO II CORSO UMBERTO I, 40 80138 NAPOLI, ITALY
• Occupation or position held	Tenure-track assistant professor (RTD-B)
• Main activities and responsibilities	Research on electromagnetics and remote sensing topics. Teaching undergraduate and graduate courses in electromagnetics and remote sensing.
• Dates	30/12/2016 – 15/12/2019
• Name and address of employer	UNIVERSITY OF NAPLES FEDERICO II CORSO UMBERTO I, 40 80138 NAPOLI, ITALY
• Occupation or position held	Assistant professor (RTD-A)
• Main activities and responsibilities	Research on electromagnetics and remote sensing topics. Teaching undergraduate and graduate courses in electromagnetics and remote sensing.
• Dates	14/10/2016 – 31/12/2016
• Name and address of employer	CENTRO REGIONALE INFORMATION COMMUNICATION TECHNOLOGY SCRL VIALE TRAIANO SNC 82100 BENEVENTO, ITALY
• Occupation or position held	Research contract
• Main activities and responsibilities	Research in the framework of the project MODISTA (Soluzioni innovative per il Monitoraggio e la Diagnostica preventiva di infrastrutture e flotte di veicoli da remoto al fine di elevare i livelli di disponibilità, efficienza e sicurezza dei siSTemi ferroviAri). My work consisted in the development of algorithms regarding the electromagnetic model developed to quantify the microwave visibility of the railroad on SAR images.
• Dates	25/05/2016 – 24/12/2016
• Name and address of employer	DEPARTMENT OF ELECTRICAL ENGINEERING AND INFORMATION TECHNOLOGY UNIVERSITY OF NAPLES FEDERICO II VIA CLAUDIO, 21 80125 NAPOLI, ITALY
• Occupation or position held	Research grant
• Main activities and responsibilities	Research in the framework of the project TELEMACO (Tecnologie abilitanti e sistemi innovativi a scansione Elettronica del fascio in banda Millimetrica e centimetrica per Applicazioni radar a bordo di velivoli). My work consists in the analysis of the FLoSAR (Forward Looking SAR) system, with focus on simulator development and data simulation.
• Dates	01/04/2015 – 31/03/2016
• Name and address of employer	DEPARTMENT OF ELECTRICAL ENGINEERING AND INFORMATION TECHNOLOGY UNIVERSITY OF NAPLES FEDERICO II

	VIA CLAUDIO, 21
	80125 NAPOLI, ITALY
• Occupation or position held	Research fellow (Assegnista di ricerca)
• Main activities and responsibilities	Research in the framework of the project SIRena (Sviluppo ed Industrializzazione di sistemi a Radiofrequenza e finestre elettromagnetiche). My work consisted in the analysis and performance evaluation of sparse phased arrays, with focus on fractal and coprime arrays.
• Dates	15/12/2014 – 31/03/2015
• Name and address of employer	CONSORZIO NAZIONALE INTERUNIVERSITARIO PER LE TELECOMUNICAZIONI (C/O LABORATORIO NAZIONALE DI COMUNICAZIONI MULTIMEDIALI, NAPOLI)
	VIALE G. P. USBERTI, 181/A
	43124 PARMA, ITALY
• Occupation or position held	Research grant
• Main activities and responsibilities	Research in the framework of the POR Campania project “Nuovi Paradigmi e Tecnologie per la Collective Knowledge nell’e-Society”. My work consisted in the analysis of the new Software Defined Netwoking (SDN) paradigm, in the framework of Next Generation Networks (NGNs).
• Dates	01/08/2014 – 30/11/2014
• Name and address of employer	CONSORZIO NAZIONALE INTERUNIVERSITARIO PER LE TELECOMUNICAZIONI (C/O LABORATORIO NAZIONALE DI COMUNICAZIONI MULTIMEDIALI, NAPOLI)
	VIALE G. P. USBERTI, 181/A
	43124 PARMA, ITALY
• Occupation or position held	Research contract
• Main activities and responsibilities	Research in the framework of the PON project HABITAT (HArBour traffIc opTimizAtion sysTem). I developed a modified two-ray model for the description of the propagation of the WiMAX signal in a harbor scenario. The model was included in OPNET and used for performance analysis of the network infrastructure.
• Dates	01/05/2013 – 30/04/2014
• Name and address of employer	DEPARTMENT OF ELECTRICAL ENGINEERING AND INFORMATION TECHNOLOGY
	UNIVERSITY OF NAPLES FEDERICO II
	VIA CLAUDIO, 21
	80125 NAPOLI, ITALY
• Occupation or position held	Research fellow (Assegnista di ricerca)
• Main activities and responsibilities	Research in the framework of the EU FP7 Copernicus research and development project DOLPHIN (Development of Pre-operational Services for Highly Innovative Maritime Surveillance Capabilities). I developed several models and algorithms for the analysis and elaboration of SAR images of maritime scenes.
• Dates	01/04/2012 – 31/03/2013
• Name and address of employer	DEPARTMENT OF BIOMEDICAL, ELECTRONIC AND TELECOMMUNICATION ENGINEERING
	UNIVERSITY OF NAPLES FEDERICO II
	VIA CLAUDIO, 21
	80125 NAPOLI, ITALY
• Occupation or position held	Research fellow (Assegnista di ricerca)
• Main activities and responsibilities	Research in the framework of the EU FP7 Copernicus research and development project DOLPHIN (Development of Pre-operational Services for Highly Innovative Maritime Surveillance Capabilities). I developed several models and algorithms for the analysis and elaboration of SAR images of maritime scenes.
• Dates	01/07/2011 – 31/01/2012
• Name and address of employer	DEPARTMENT OF BIOMEDICAL, ELECTRONIC AND TELECOMMUNICATION ENGINEERING
	UNIVERSITY OF NAPLES FEDERICO II
	VIA CLAUDIO, 21
	80125 NAPOLI, ITALY

• Occupation or position held	Research contract
• Main activities and responsibilities	Research in the framework of the Italian Space Agency Cosmo-SkyMed AO project "Buildings Feature Extraction from Single SAR Images: Application to COSMO-SkyMed High Resolution SAR Images". I developed several models and algorithms for the analysis and elaboration of SAR images of urban and natural scenes.
• Dates	20/09/2010 – 19/02/2011
• Name and address of employer	DEPARTMENT OF BIOMEDICAL, ELECTRONIC AND TELECOMMUNICATION ENGINEERING UNIVERSITY OF NAPLES FEDERICO II VIA CLAUDIO, 21 80125 NAPOLI, ITALY
• Occupation or position held	Research grant
• Main activities and responsibilities	Research in the framework of the Italian Space Agency Cosmo-SkyMed AO project "Buildings Feature Extraction from Single SAR Images: Application to COSMO-SkyMed High Resolution SAR Images". I developed several models and algorithms for the analysis and elaboration of SAR images of urban and natural scenes.
• Dates	02/05/2009 – 31/05/2010
• Name and address of employer	DEPARTMENT OF BIOMEDICAL, ELECTRONIC AND TELECOMMUNICATION ENGINEERING UNIVERSITY OF NAPLES FEDERICO II VIA CLAUDIO, 21 80125 NAPOLI, ITALY
• Occupation or position held	Research contract
• Main activities and responsibilities	Research in the framework of the POR project LOTRASCO, regarding electromagnetic techniques for the localization of unknown transmitters. I performed a state-of-the-art analysis of localization techniques. Electromagnetic models to be used for localization purposes were included in a ray-tracing software.
• Dates	01/12/2008 – 31/03/2009
• Name and address of employer	DEPARTMENT OF BIOMEDICAL, ELECTRONIC AND TELECOMMUNICATION ENGINEERING UNIVERSITY OF NAPLES FEDERICO II VIA CLAUDIO, 21 80125 NAPOLI, ITALY
• Occupation or position held	Research grant
• Main activities and responsibilities	Research in the framework of a project financed by Regione Campania regarding indoor electromagnetic propagation with focus on wireless networks. I performed a state-of-the-art analysis of indoor propagation models. An indoor ray-tracing software was tested.

EDUCATION

• Dates	February 2009
• Name and type of organisation providing education and training	UNIVERSITY OF NAPLES FEDERICO II
• Principal subjects	Electromagnetics, Remote sensing, Signal processing; Supervisor: Prof. Daniele Riccio; Thesis title: Electromagnetic Modeling and Information Extraction from SAR data
• Title of qualification awarded	Ph.D. degree ("Dottorato di ricerca") in Electronic and Telecommunication Engineering
• Level in national classification	Ottimo
• Dates	May 2005
• Name and type of organisation providing education and training	UNIVERSITY OF NAPLES FEDERICO II
• Principal subjects	Thesis title: Remote Sensing for Developing Countries: Vegetation Monitoring
• Title of qualification awarded	Laurea degree in Telecommunication Engineering (5 years)
• Level in national classification	110/110 *cum laude*

TEACHING ACTIVITY

- Electromagnetic Fields (University of Naples, 2017-present)
- Projects of remote sensing systems (University of Naples, 2017-present)
- Physics II (Electromagnetism and optics): Short support course (University of Naples, July 2010)
- Teaching assistant (hands-on part): Guided propagation (University of Naples, 2009)
- Teaching assistant (hands-on part): Electromagnetic fields (University of Naples, 2008)
- Teaching assistant (hands-on part): Guided propagation (University of Naples, 2008)
- Teaching assistant (hands-on part): Electromagnetic fields (University of Naples, 2012)
- Teaching assistant (hands-on part): Remote sensing and electromagnetic diagnostics (University of Naples, 2012-2016)
- Teaching assistant (hands-on part): Projects of remote sensing systems (University of Naples, 2012-16)
- Selected from the University of Naples “Parthenope” to teach “Theoretical and numerical analysis: Maxwell equations and guided propagation” in the framework of a training course for employees of the TECNEVA consortium (2015)
- Selected from TEST s.c.a.r.l. to teach “Remote sensing” in the framework of a training course for grantees of the MODISTA PON project (2015)
- Lectures at the course Projects of remote sensing systems (2008, 2011)
- Lectures at the course Remote sensing and electromagnetic diagnostics (2006-2007, 2011)
- Supervisor or co-supervisor of more than 100 Laurea degree thesis works (University of Naples Federico II, since 2006)

PUBLICATIONS

Peer-reviewed journal papers (only most recent ten):

- **G. Di Martino**, A. Di Simone, A. Iodice, D. Riccio, "Benchmarking Framework for Multitemporal SAR Despeckling", IEEE Trans. Geosci. Remote Sens., in print, 2021.
- **G. Di Martino**, A. Iodice, A. Natale, D. Riccio, "Time-Domain and Monostatic-like Frequency-Domain Methods for Bistatic SAR Simulation", Sensors, vol. 21, no. 15, 5012, 2021.
- **G. Di Martino**, A. Di Simone, A. Iodice, D. Riccio, "Bistatic Scattering From Anisotropic Rough Surfaces via a Closed-Form Two-Scale Model", IEEE Trans. Geosci. Remote Sens., vol. 59, no. 5, pp. 3656-3671, May 2021.
- D. Amitrano, **G. Di Martino**, R. Guida, P. Iervolino, A. Iodice, M. N. Papa, D. Riccio, G. Ruello, "Earth Environmental Monitoring Using Multi-Temporal Synthetic Aperture Radar: A Critical Review of Selected Applications", Remote Sensing, vol. 13, no. 4, 604, 2021.
- D. Amitrano, R. Guida, **G. Di Martino**, A. Iodice, "Glacier Monitoring Using Frequency Domain Offset Tracking Applied to Sentinel-1 Images: A Product Performance Comparison", Remote Sensing, vol. 11, no. 11, 1322, 2019.
- **G. Di Martino**, A. Iodice, D. Riccio, "Closed-Form Anisotropic Polarimetric Two-Scale Model for Fast Evaluation of Sea Surface Backscattering", IEEE Trans. Geosci. Remote Sens., vol. 57, no. 8, pp. 6182-6194, Aug. 2019.
- D. Amitrano, R. Guida, D. Dell'Aglio, **G. Di Martino**, D. Di Martire, A. Iodice, M. Costantini, F. Malvarosa, F. Minati, "Long-Term Satellite Monitoring of the Slumgullion Landslide Using Space-Borne Synthetic Aperture Radar Sub-Pixel Offset Tracking", Remote Sensing, vol. 11, no. 3, 369, 2019.
- L. Chiaraviglio, A. S. Cacciapuoti, **G. Di Martino**, M. Fiore, M. Montesano, D. Trucchi, N. Blefari Melazzi, "Planning 5G Networks under EMF Constraints: State of the Art and Vision", IEEE Access, 6, 8453791, pp. 51021-51037, 2018.
- **G. Di Martino**, A. Di Simone, D. Riccio, "Fractal-Based Local Range Slope Estimation from Single SAR Image with Applications to SAR Despeckling and Topographic Mapping", Remote Sensing, vol. 10, no. 8, 1294, 2018.
- D. A. G. Dell'Aglio, **G. Di Martino**, A. Iodice, D. Riccio, G. Ruello, "A Unified Formulation of SAR Raw Signals From Extended Scenes for All Acquisition Modes With Application to Simulation", IEEE Trans. Geosci. Remote Sens., vol. 56, no. 8, pp. 4956-4967, Aug. 2018.

AWARDS AND FURTHER EXPERIENCES

- Study and research experience in Goma, Democratic Republic of Congo (RDC), for the Laurea thesis work in collaboration with the local Don Bosco Centre (NGANGI), the mission of the United Nations in Congo (MONUC-OCHA) and the Volcano Observatory of Goma (OVG) (March 2005).
- Awarded for the best Idea for a novel enterprise by the Rector of the University of Naples "Federico II" (Prof. Guido Trombetti) for the project "Remote sensing in developing countries", based on the Laurea thesis work (November 2005).
- Recipient of a grant to attend the short Course on "Time domain Techniques for Antenna Analysis" organized by the European School of Antennas and held in Nice, France (November 2006).
- Short research mobility period in the Department of Signal Theory and Communications of the Universitat Politècnica de Catalunya (Barcelona), in the framework of the integrated actions between Italy and Spain (Azioni integrate Italia-Spagna) (February 2007).
- Attendance of the short Course on "Antenna Synthesis" organized by the European School of Antennas and held in Naples, Italy (March 2007).
- Short research mobility period in the Department of Photogrammetry and Remote Sensing of the Technische Universitaet Muenchen (Munich) within the framework of the VIGONI German-Italian exchange program (April 2008).
- Short research mobility period in the Department of Communications and Electronics of TELECOM ParisTech (Paris) within the framework of the Galileo French-Italian exchange program (September 2008).

- Selected for attendance of the 2nd Advanced Course on Radar Polarimetry organized by the European Space Agency (ESA) and held in Frascati, Italy (January 2013).
- Invited as session chair at the 2014 IEEE International Geoscience and Remote Sensing Symposium, IGARSS 2014.
- Co-chair of two session at the 2017 IEEE International Geoscience and Remote Sensing Symposium, IGARSS 2017.
- Chair of one session at the 2021 IEEE Forum on Research and Technologies for Society and Industry, RTSI 2021.
- Co-founder of "Latitudo 40 s.r.l.", a spin-off of the University of Naples Federico II.
- Member of the Institute of Electric and Electronic Engineers (IEEE) and of the Geoscience and Remote Sensing Society (GRSS): Graduate Student Member 2006-2008, Member 2009-2016, Senior Member 2017-present.
- Recipient of the FFABR funding for performing basic research activities (2017).
- Recipient of the Italian National Scientific Habilitation for Associate Professor of Electromagnetic Fields (March 2018).
- Associate Editor of the month for IEEE Access (May 2019).

EDITORIAL ACTIVITY

- *Associate Editor*: IEEE Access (since 2018); IEEE Journal of Selected Topics on Applied Earth Observations and Remote Sensing (since 2021); Remote Sensing MDPI (since 2019); Electronics MDPI (since 2021).
- *Guest Editor*: Special issue "Electromagnetic Scattering Theory and Its Applications" for MDPI Electronics.
- *Guest Editor*: Special issue "Synthetic Aperture Radar (SAR) Simulation and Processing" for MDPI Sensors.
- *Guest Editor*: Special issue "Antennas and Propagation for Millimeter and Sub-Millimeter Waves: 5G and Beyond" for MDPI Electronics.
- *Book Co-Editor*: IET book "Maritime Surveillance with SAR Data" (published by IET in 2020).