

PERSONAL INFORMATION

Andrea Garzelli

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🔍 [Google Scholar C61jjN4AAAAJ&hl=en](https://scholar.google.com/citations?user=C61jjN4AAAAJ&hl=en)

EDUCATION

- 1995 Ph.D. degree in Computer Science and Telecommunication Engineering – University of Florence, Italy
- 1991 “Laurea” degree (summa cum laude) in Electronic Engineering – University of Florence, Italy
- 1991 National qualification for the engineer profession

ACADEMIC POSITION

- 2023– Full Professor of Telecommunications, Department of Information Engineering and Mathematics, University of Siena
- 2001-2022 Associate Professor of Telecommunications, Department of Information Engineering and Mathematics, University of Siena
- 1995-2001 Assistant Professor of Telecommunications, Faculty of Engineering, University of Siena

RESEARCH TOPICS

- Image analysis and processing
- Image classification and detection
- Remote sensing image fusion
- Pansharpening
- SAR change detection

PUBLICATIONS

Complete lists [Google Scholar Profile](#) [Scopus Profile](#)

Bibliometrics (May 14, 2025)

	Google Scholar	Scopus
Number of publications	262	216
Citations	13203	10797
2025 citations	1194	1107
Hirsch’s h-index	47	46
Egghe’s g-index	113	102

TEACHING EXPERIENCE

- 2012-present ‘Statistical Signal Processing’, M.Sc. in Electronics and Communications Engineering, University of Siena
- 2015-present ‘Fundamentals of Signal Processing and Telecommunications’, B.Sc. in Computer Science and Information Engineering, University of Siena
- 2022 ‘Remote Sensing’, M.Sc. in Geological sciences and technologies, University of Siena
- 2002-2015 Tutor of five PhD students – Information Engineering PhD course, University of Siena

1994-2017 'Digital Signal Processing', 'Signal Theory', 'Electrical Communications', 'Remote Sensing', University of Siena

SERVICE AND ORGANISATION

International

2015-present Associate Editor for the journal IEEE Transactions on Geoscience and Remote Sensing
2013-2015 Finance Chair of the IEEE International Geoscience and Remote Sensing Symposium, IGARSS 2015
2001-present Member of the Image Analysis and Data Fusion Committee (formerly Data Fusion Committee) of the IEEE Geoscience and Remote Sensing Society

National

2026-present Coordinator of the PhD in Information Engineering and Science at the University of Siena, Italy.
2021-2023 Program Coordinator of the graduate course in Computer and Information Engineering at the University of Siena
2016-2021 President of the Quality Assurance Committee (PQA) of the University of Siena
2002-2009 Program Coordinator of both graduate and post-graduate courses in Telecommunication Engineering at the University of Siena
2015-present Committee Member of the PhD in Information Engineering and Science at the University of Siena, Italy.

AWARDS AND RECOGNITION

2004 IEEE Geoscience and Remote Sensing Society Letters Prize Paper Award for the paper "A Global Quality Measurement of Pan-Sharpned Multispectral Imagery"
2006 Senior Member of the IEEE
2014 Best Reviewer of the IEEE Transactions on Geoscience and Remote Sensing
2014-2015 Outstanding Information Research Foundation (IRF) Book publication award for the book "Remote Sensing Image Fusion" (CRC Press)
2017 Jan-Apr Hot paper awarded by ISI Web of Knowledge: G. Vivone, L. Alparone, J. Chanussot, M. Dalla Mura, A. Garzelli, G. Licciardi, R. Restaino, and L. Wald, "A Critical Comparison Among Pan-sharpening Algorithms", IEEE Transactions on Geoscience and Remote Sensing, vol. 53, no. 5, pp. 2565-2586, May 2015.
2020-2025 Listed in *career-long* World's Top 2% Scientists by Stanford University
2020-2025 Listed in *single-year 2019-2024* World's Top 2% Scientists by Stanford University

RESEARCH PROJECTS

Research unit coordinator

2025-2026 ANN-SAR, Classification of SAR images through Artificial Neural Networks (IDS-SpA, Italian Ministry of Defense)
2019-2020 Satellite images for land-use applications (Tuscany Region Administration through Consorzio LaMMA)
2015-2018 TACTIC, Screening of high-resolution SAR images for medium and large scale scenarios (IDS-SpA, Italian Ministry of Defense)
2014-2017 SOAR-ASI 5245, COSMO-SkyMed/RADARSAT-2 Initiative, (Italian Space Agency, Canadian Space Agency)
2013-2015 CAESARIS, Cognitive Airborne multisensor System for Aerial Reconnaissance Intelligence and Surveillance, (EU-FP7-SME, 2013-2015)
2012-2013 KLEAN, Knowledge-based EFB for green flight trajectory decision aid (EU-Clean Sky Joint Technology Initiative, 2012-2013)
2012-2013 CleanSky, Test ed ottimizzazione della catena di processing per la rivelazione e la caratterizzazione di fenomeni meteorologici in radar avionici in banda X, (SELEX-Galileo S.p.A., 2013)

- 2009-2013 SISAR - Feasibility study of an automatic interpretation system of SAR images (IDS-SpA, Italian Ministry of Defense)
- 2010-2012 Development and validation of multitemporal image analysis methodologies for multirisk monitoring of critical structures and infrastructures (ASI COSMO/SkyMed, Announcement of Opportunity for CSK data, 2010-2012)
- 2010-2012 LOTHAR-FATT, Feasibility study of an adaptive Over-The-Horizon HF radar for the surveillance of the Mediterranean Sea (Italian Ministry of Defense, 2008-2010)
- 2006-2007 Development and validation of innovative data fusion techniques for environmental remote sensing (PRIN, MIUR, Italian Ministry of University and Research)
- 2004-2005 LOTHAR, Pre-feasibility study of an adaptive Over-The-Horizon HF radar for the surveillance of the Mediterranean Sea (Italian Ministry of Defense)
- 2003-2003 ECOSAR (ASI, Fundamental Research)
- 2001-2003 Development and validation of a sea surface fractal model (ESA-Envisat AO-161 Announcement of Opportunity for the exploitation of Envisat data)
- 2001 ECOSAR, Processing and classification of optical and SAR data for environmental risk management (ASI, Italian Space Agency, Cosmo-Skymed Program)
- 2001-2002 Experimentation of integrated methodologies for ocean color analysis from MERIS data (ASI, Italian Space Agency, Fundamental Research)
- 1997-1999 SEEDS, Simulation Environment for the Evaluation of Distributed traffic control Systems (ES-PRIT Project EP 22691)
- 1995 Development of integrated methods of agro-ecological classification by means of remote sensing data for natural resources management (ASI, Italian Space Agency)

Participant

- 2022-2023 TUS:CAN (ASI - Call for ideas "I4DP_PA, Innovation for Downstream Preparation for public Administrations")
- 2022-2024 CLASS - Ceci, distillato di legno, biochar e intelligenza artificiale per un sistema agrifood smart e sostenibile (Tuscany Region Administration)
- 2020-2021 Processing of remote sensing data (Tuscany Region Administration)
- 2011-2015 OPTIMA, Metodologie avanzate per l'analisi, l'integrazione e l'ottimizzazione dei prodotti di livello 1 e 2 della missione PRISMA (ASI - Studi Scientifici a Supporto della Missione PRISMA, 2011-2015)
- 2014-2015 Studio e sviluppo di algoritmi per la sorveglianza automatica (CoMETA S.p.A.)
- 2006-2007 Distributed image coding for remote sensing applications (ESA, European Space Agency)
- 2001-2002 Data Fusion (PRIN, MIUR, Italian Ministry of University and Research)
- 2001-2002 System for SAR image interpretation (ASI, Italian Space Agency, Cosmo-Skymed Program)
- 2000 Watermarking techniques for copyright protection and authentication of remote sensing images accessible from public and private computer networks, ASI, Italian Space Agency, 2000)
- AVANTI, Adaptive and Adaptable Interactions for multimedia Telecommunications applications (ACTS EU Project)
 - HIPS, Hyper-Interaction within Physical Space, (ESPRIT EU Project)
 - ECHOES, Educational Hypermedia On-line System, (DGXII EU Project)