

# Curriculum vitae

# PERSONAL INFORMATION Andrea Garzelli

- Vuniversity of Siena, Department of Information Engineering and Mathematics
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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	
2017	National research accreditation as Full Professor of Telecommunications
2001-present	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
TEACHING EXPERIENCE	
2012-present	'Statistical Signal Processing', M.Sc. in Electronics and Communications Engineering, University of Siena
2015-present	'Fundamentals of Telecommunications', B.Sc. in Computer Science and Information Engineer- ing, 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
2016-present	Coordinator 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-Sharpened 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)

## Mother tongue Italian

#### Other languages

nguages	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C2	C1	C2	C2
French	B2	C1	B2	B1	B2

Levels: A1 and A2: Basic user – B1 and B2: Independent user – C1 and C2: Proficient user Common European Framework of Reference for Languages

#### **RESEARCH TOPICS**

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

## RESEARCH PROJECTS

#### Research unit coordinator

	Research unit coordinator
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 caratteriz- zazione 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

- 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 D

- 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)

## PUBLICATIONS

Complete list Google Scholar Profile

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Bibliometrics (September 2020)

	Google Scholar	Scopus
Number of publications	233	173
Citations	6326	4774
2019 citations	826	757
Hirsch index	32	30