

PERSONAL INFORMATION

Fabio Del Frate



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Sex M | Date of Birth 1

Nationality Italian

POSITION

Full Professor at University of Rome "Tor Vergata", Italy

WORK EXPERIENCE

RESEARCH

1999 - today	Researcher, Associate Professor (since 2015), Full Professor (since 2021) University of Rome "Tor Vergata" <ul style="list-style-type: none"> Responsible of Earth Observation Laboratory and the of "AI4EO: Artificial Intelligence for Earth Observation" team Responsible Research Activities for Projects funded by European Space Agency Responsible Research Activities for Projects funded by FAO (Food and Agriculture Organization) Responsible Research Activities for Projects funded by EUMETSAT Responsible Research Activities for Projects in collaboration with JAXA, DLR, Canadian Space Agency Selected Research Projects: <ul style="list-style-type: none"> APOLLO: Atmospheric Pollution monitoring using Earth Observation data - Principal Investigator (Funded by ESA) PRIMARY: Use of PRISMA mission for the monitoring of Air Quality - Principal Investigator (Funded by Italian Space Agency) <ul style="list-style-type: none"> In the Editorial Board of "Remote Sensing" (since 2019) Associate Editor for "Frontiers in Remote Sensing" (since 2020) Associate Editor for IEEE "Geoscience and Remote Sensing Letters" (2006-2017) Guest Editor for "EURASIP Journal on Advances in Signal Processing", special issue on: "Neural Networks for Interpretation of Remotely Sensed Data" (2010) Guest Editor for "Remote Sensing", special issue on "Recent Advances of Neural Networks in Remote Sensing (2018) Invited Speaker, Member of the Organizing Committee, Technical Sessions Organizer, member of the Technical Committee in National and International Remote Sensing Conferences and Workshops Reviewer for International Remote Sensing Journals Author of more than 300 International Publications Scientific Proposals Reviewer for European Space Agency and National Institutions Sectors: Remote Sensing, Earth Observation, Artificial Intelligence, Image Processing Electromagnetic Waves
2020 – today	Visiting Professor ESA-ESRIN Phi-Lab Center <ul style="list-style-type: none"> Providing training and consultancy activities about the use of Artificial Intelligence for the analysis of EO data Sectors: Remote Sensing, Earth Observation, Artificial Intelligence, Image Processing
2014 – 2015	EUMETSAT Associated Scientist <ul style="list-style-type: none"> Development of Cell tack processing chains using MSG data

	Sectors: Meteorology, Remote Sensing, Satellite data
1998 – 1999	Research Fellow European Space Agency – ESRIN Design and development of end-to-end Earth Observation applications
1995 – 1996	Visiting Scientist Research Laboratory of Electronics – Massachusetts Institute of Technology, Cambridge, MA, USA Research activity about electromagnetic modelling and neural networks Sector: Remote Sensing
1992 - 1994	Scholarship Holder S.M.A.. Segnalamento Marittimo e Aereo S.p.A Algorithms development for the estimation of atmospheric parameters from microwave radiometry Sector: Remote Sensing

TEACHING ACTIVITIES

- 1994 **Professional Training Course**
Telespazio S.p.A., Centro Spaziale del Fucino
- Responsible module Data networks and Digital Transmission
- Sector** ICT
- 1999 -today **School of Engineering Courses**
University of Rome “Tor Vergata”
- Responsible of the Course “Remote Sensing and Cartography” (Master Level)
 - Responsible of the Course “Electromagnetic Pollution” (Master Level)
 - Responsible of the Course “Microwaves” (Master Level)
 - Responsible of the Course “Neural Networks for Remote Sensing Applications” (PhD Level)
 - Coordinator of the Master of “Design, Application, Regulation of UAV Systems”
 - School of Engineering Erasmus Coordinator
 - Member of the University of “Tor Vergata” Academic Senate (2008-2010)
- Sector:** Environmental Engineering, Telecommunication Engineering, Computer Science Engineering
- Participation to European Training Projects
- LearnEO! (funded by ESA)
 - EUMETSAT MOOC “Artificial Intelligence for Earth Monitoring” (funded by EUMETSAT)
 - CAMS National Collaboration Programme (Funded by ECMWF)
 - InnEO PhD: Open Science innovation in PhD programme through Earth Observation (Funded by EC)

TECHNOLOGY TRANSFER

- 2000 - today **Technical Responsible**
University of Rome “Tor Vergata”
- Responsible of R&D contracts with ESA, EUMETSAT, FAO, TIM, Telespazio, TSF (Tele Sistemi Ferroviari), TERNA, Fondazione Meteorologia Applicata, APAT
- Selected International Projects
- FABSPACE 2.0: The Fablab for geodata-driven innovation – by leveraging Space data in particular, in Universities 2.0 (Funded by EC)
 - AI4AGRI: Romanian Excellence Center on Artificial Intelligence in Earth Observation Data for Agriculture (Funded by EC)
 - AI-OBSERVER: Enhancing Earth Observation capabilities of the Eratosthenes Centre of Excellence on Disaster Risk Reduction through Artificial Intelligence (Funded by EC)

2006 - today
 Sector: Earth Observation
President

GEO-K SRL – First Spin-Off of University of “Tor Vergata”

- Marketing and Technical Direction,

Sector Earth Observation, Artificial Intelligence, Image Processing, Remote Sensing, UAV

Selected GEO-K contracts

- **HSAF** – Generation of Meteorological products using EUMETSAT MFG, MSG and MTG data (funded by EUMETSAT)
- **SEA-ICE CLOUD SCREENING**: development of algorithms for the detection of clouds in the polar areas using Sentinel 3 data (funded by EUMETSAT)
- **VISTA**: Development of neural networks algorithms for volcanic ash detection using Sentinel 3 data (funded by ESA)
- **IRIDE**: Generation of products from satellite data aiming at the monitoring of Environmental Climate Variables and Green House Gases (funded by ESA)
- **PIGEON**: Air Quality monitoring scenario for the application of Super-resolved hyperspectral data using AI

EDUCATION AND TRAINING

1997 **PhD Computer Science Engineering and Automation Engineering**

University of Rome “Tor Vergata”

Topics: Remote Sensing, Artificial Intelligence, Software Reliability, Electromagnetic Models

1992 **Master in Electronic Engineering**

University of Rome “Tor Vergata”

“Telecommunication”

1983 **Liceo Scientifico Diploma**

Liceo Scientifico Statale Augusto Righi, Rome

PERSONAL SKILLS

Mother tongue Italian

Other Languages lingue

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken Interaction	Spoken Production	
Inglese	C1	C1	C1	C1	C1
Spagnolo	A2	A2	A2	A2	A1

Communication Skills ▪ Interviews for Italian Newcast and Magazines

Organizational and Managerial skills ▪ Since 2006 CEO of GEO-K Srl

Driving License B

ADDITIONAL INFORMATION