Alessandro **Sebastianelli, Ph.D.**



About me

Alessandro Sebastianelli received the degree (cum laude) in Electronic Engineering from the University of Sannio in 2019, where he also obtained the Ph.D. degree in Information Technologies for Engineering in 2022. His expertise covers EO, AI, and quantum computing. He has coauthored a book and around 50 publications in reputed journals and international conferences, with an H-index of 13 and more than 775 citations. He has also managed and chaired sessions at leading workshops and international conferences. He received an IEEE award for one of the best theses in GRSS. He has been as a visiting researcher and later as a research fellow at the ESA Φ -lab) for a total of six years, until 09/2025, where he was responsible for both the research line and industrial activities on quantum computing for EO. After a selective process, he was awarded ESA co-funding through the OSIP program to carry out research on Al-driven domain translation and data fusion for EO applications. He also worked for a few months as an EO Engineer at Titan4, focusing on structural monitoring based on SAR and optical satellite data. He currently leads the QC4EO working group within the QUEST IEEE GRSSS Technical Committee and covers the role of Topical Associate Editor in IEEE TGRS. In 09/2025, he joined CMCC as a Scientist in the REMHI Division and PRESTO Unit.

Personal

Alessandro Sebastianelli Nationality: Italian YOB: 1995 Age: 29



🕋 click me

Areas of specialization

Remote Sensing Applications, Artificial Intelligence and Quantum Machine Learning

Interests

Earth Observation, Machine Learning, Quantum Technologies, Digital Technologies

Digital Skills

OS (Excellent), Programming (Excellent), Office suite (Excellent), CAD (limited), Internet (Excellent), Web-dev (limited), Multimedia (Excellent)

SHORT RESUMÉ

09/2025-today

Junior Scientist

Euro-Mediterranean Center on Climate Change CMCC · Caserta (IT) 💡 Supporting REMHI division and PRESTO Unit, as expert of Artificial Intelligence and Earth Observation.

10/2022-08/2025

Research Fellow in Quantum Computing for Earth Observation

EUROPEAN SPACE AGENCY, Φ-LAB · Frascati (IT) 9

Technical officer of QC4EO OSIP activities. Technical officer of ITT on QC4EO and Blockchain4EO. TEB expert evaluator. Research activities about quantum computing, quantum machine learning and quantum technologies applied to Earth Observation and space sector, with a focus on operationability.

08/2020-10/2022

ESA OSIP

EUROPEAN SPACE AGENCY, Φ-LAB · Frascati (IT) 💡

Co-funded activity on AI powered cross-modal adaptation techniques applied to S1 & S2 data.

09/2019-11/2019

Earth Observation Engineer

TITAN4 · Rome (IT) ♀

structural monitoring based on SAR and optical satellite data. Use and validation of a tool for the measurement of displacements. The start-up was incubated in ESA BIC Lazio.

07/2019-11/2019

Visiting Researcher

EUROPEAN SPACE AGENCY, Φ-LAB · Frascati (IT) •

Creation of EO datasets through the implementation of automatic tools for data retrieval and processing of those data with Al.

EDUCATION

12/2019-10/2022

Ph.D. in Information Technologies for Engineering

3 YEARS, GRADUATED · Un. of Sannio 1

Satellite Remote Sensing through ML and Quantum Computing Techniques.

09/2017-10/2019

Master in Electronics Engineering

2 YEARS, 110/110 CUM LAUDE · Un. of Sannio im

SAR and Optical data fusion using AI. Generation of Sentinel-2 images from despeckled Sentinel-1 data.

09/2014-10/2017

Bachelor in Electronics Engineering

3 YEARS, 102/110 · Un. of Sannio in

Use of the Differential Interferometry on Sentinel images for the land displacements measurement. Ischia earthquake and comparison with INGV data.

CERTIFICATES & GRANTS ADDITIONAL INFO

Global top 100 AI solutions for 2022 **SDGs**

2022 Best UNICEF Research. 2022 Wellcome Trust Support.

GRS 29-Italy 2020 award for 2021 the three best master's degree theses in geosciences and remote sensing

2020 ESA OSIP co-founded Ph.D. 2020

Teamwork Excellence Award for the RACE Team through demostratig excellent use of space for the benefit of society or the environment (by the ESA DG Josef Ashbacher).

Development experience: The complete record can be found on personal GitHub page, ESA Φ -lab page, UnisannioEOLab page (dev languages/environments main: Python, bash and C, secondary: Java, javascript, HTML, MATLAB, Verilog).

Scientific publications: $50 \sim 775$ citations, H-index of 13. A full list of my publications can be found here (click me).

Talks: More than 10. A full list of talks I gave can be found here (click me).

Supervising: More than 20 projects. A full list of supervising activities can be found here (click me).

Events: A full list of events I co-organized can be found here (click me).

IEEE: I am currently leading the QC4EO WG in IEEE GRSS QUEST and serving as TAS at TGRS

LANGUAGES

C2 Italian mother tongue English C1 Α2 French

Personal skills

High Experience and attitude in International Team Working. High attitude towards Problem Solving and Continuous Improvement. Results oriented, with ability of adapting to rapid changes. Hobbies: Photography, Playing Guitar.

The undersigned Alessandro Sebastianelli authorizes the processing of personal data contained in my curriculum vitae based on art. 13 of Legislative Decree 196/2003 and art. 13 of EU Regulation 2016/679 relating to the protection of individuals (GDPR).