



# Allegra Murra

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**Date of birth:** 27/06/1994 **Nationality:** Italian

## WORK EXPERIENCE

[ 01/01/2023 – Current ]

### Junior Researcher

**La Sapienza University of Rome**

**City:** Rome

**Country:** Italy

Study of SAR data inversion techniques for lava flows geomorphologic and dielectric properties retrieval by means of backscattering models.

1. Sentinel-1, ALOS-Palsar, COSMO-SkyMed SAR data processing and analysis;
2. ESA's SNAP tool; MATLAB.

[ 01/12/2022 – 31/05/2023 ]

### Trainee

**EUSPA - Galileo Services Department Team**

**City:** Prague

**Country:** Czechia

1. Contribute to the assessment of the Galileo performance of current Notification Advisory services and their proposed updates:
  - a. Gathering performance monitoring data from various sources;
  - b. Data aggregation, cross-check and analysis;
  - c. Elaboration of daily, monthly and quarterly performance reports;
2. Support the team activities, notably for the elaboration of technical documentation:
  - a. Preparing and presenting specific supporting analyses and figures.

## EDUCATION AND TRAINING

[ 20/11/2023 – 09/02/2024 ]

### PolinSAR - SAR, SAR Polarimetry, SAR Interferometry, Polarimetric SAR Interferometry and SAR Tomography training course

**German Aerospace Center (DLR) / European Space Agency (ESA) / EEBIOMASS**

**City:** Online

[ 05/09/2023 ]

### Authorized to Practice the Engineer Profession

**Order of Engineers - Rome**

**City:** Rome

**Country:** Italy

[ 10/2019 – Current ]

### Master Degree in Communication Engineering (Radar and Remote sensing profile)

**Sapienza University of Rome**

**City:** Rome

**Country:** Italy

**Field(s) of study:** Information and Communication Technologies

**Level in EQF:** EQF level 7

**Thesis:** Analysis of lava flows radar backscattering in view of VERITAS, the upcoming mission at Venus

Main subject / occupational skills covered:

- SAR signal processing and SAR data inversion techniques
- ISAR signal processing for naval target images reconstruction
- Passive and Active Radar signal processing for surveillance
- Phased array and adaptive phased array sizing for target DoA estimation and tracking
- Machine Learning techniques for semantic segmentation of SAR images with a completely convolutive neural network.
- Team work and "Problem solving"

Main programming languages used:

- MATLAB
- Linux Shell
- Python

[ 09/2013 – 09/2019 ]

### **Bachelor Degree in Management Engineering**

**University of Rome Tor Vergata**

**City:** Rome

**Final grade:** 100/110 **Level in EQF:** EQF level 6

**Thesis:** Performance evaluation of a storage system of solar energy for residential applications

Main subject / occupational skills covered

- Basic knowledge of economic structures
- Basic knowledge of machines theory in the field of renewable energy

[ 19/08/2019 – 31/08/2019 ]

### **Cambridge English Advanced summer programme**

**Babel Taleninstituut**

**City:** Utrecht

**Country:** Netherlands

[ 09/2009 – 06/2013 ]

### **High School Diploma**

**Giulio Cesare High School**

**City:** Rome

**Level in EQF:** EQF level 4

[ 2012 ]

### **First Certificate English (FCE)**

**Cambridge ESOL**

## **LANGUAGE SKILLS**

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**Mother tongue(s):** Italian

**Other language(s):**

**English**

**LISTENING** B1 **READING** B1 **WRITING** B2

**SPOKEN PRODUCTION** B2 **SPOKEN INTERACTION** B2

*Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user*

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## **DIGITAL SKILLS**

Microsoft Office | Microsoft Word | Zoom | Skype | Outlook | Microsoft Powerpoint  
| Google Drive | Google Docs

### **Programming Languages**

Matlab, Matlab Simulink | ESA's SNAP tool | Python (basic) | Linux (basic) | REST  
Api's | SQL (basic)

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## **CONFERENCES AND SEMINARS**

[ 24/04/2023 – 28/04/2023 ]

### **Radar backscattering properties of lava flows on Earth and Venus - Abstract in atti di convegno**

EGU General Assembly 2023

Write here the description...

**Link:** <https://meetingorganizer.copernicus.org/EGU23/EGU23-4231.html>

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