

# Artificial Intelligence for Earth Observation

## AI4EO

Short Course

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# Outline

- ▶ Remote sensing: brief overview:
  - ▶ Copernicus Program and its Sentinels
  - ▶ How to access and download data
  - ▶ How to visualize and process data with SNAP
  - ▶ Differential Interferometry with Sentinel-1 and SNAP
  - ▶ Google Earth Engine: introduction
  - ▶ Google Earth Engine: visualize data
  - ▶ Google Earth Engine: process data
  - ▶ Google Earth Engine: download data
  - ▶ Exercises
- ▶ Artificial Intelligence, Machine Learning and Deep Learning: brief overview
  - ▶ Brief introduction to ML and DL
  - ▶ Examples of AI4EO: features extraction, supervised/unsupervised land cover classification, super-resolution
  - ▶ Exercises
- ▶ Assignment of projects

# To Do

- ▶ Create an account on Google Earth Engine (with a google account)
- ▶ Create an account on Copernicus Open Access Hub
- ▶ Download ESA SNAP
- ▶ Download QGIS (optional)
- ▶ Try to log in Google Colaboratory
- ▶ Form a group of 2/3 members

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