

Course offered for the STAT PhD program starting from a.y. 2025/2026

TITLE	Machine Learning for Data Analysis, and Image Classification in the Earth Sciences
Main Lecturer	Maurizio Petrelli (UNIPG) and Alessandro Mondini (CNR)
Duration and Credits	3 CFU (18 h)
Course description	The course is designed and implemented to provide students with an overall understanding of machine & deep learning techniques as applied to data analysis within the domain of Earth Sciences. The focus will be on preparing and exploiting machine learning algorithms in Python to segment and classify structured datasets, including multi-source images acquired in different spectral bands. the course will encompass both theoretical principles and practical applications, ensuring participants gain insights in the extraction of information from data.
Course organization	18 h lecture and computation
Teaching period	September 2026