

19-23 maggio 2025

School on Artificial Intelligence applications for Earth Observation

	Monday	Tuesday	Wednesday	Thursday	Friday
09:00-10:30		Once upon a time there was the Bayesian approach of parameter retrieval (Mauro Pierdicca)	Deep Learning methods for characterizing urban areas using radar and optical sensors Part I (Paolo Gamba)	Machine Learning Applications for remote sensing of soil moisture, vegetation biomass and snow - Part I (Emanuele Santi)	Snow Cover Fraction Mapping from Optical Imagery: A Progression from NDSI Thresholding to Nonlinear Machine Learning Based Unmixing EURAC - Part I (Carlo Marin)
10.30 - 11.00	coffee break				
11:00 - 12:30	Registration	Once upon a time there was the Bayesian approach of parameter retrieval (Mauro Pierdicca)	Deep Learning methods for characterizing urban areas using radar and optical sensors Part II (Paolo Gamba)	Machine Learning Applications for remote sensing of soil moisture, vegetation biomass and snow - Lab and student feedback (Emanuele Santi)	Snow Cover Fraction Mapping from Optical Imagery: A Progression from NDSI Thresholding to Nonlinear Machine Learning Based Unmixing EURAC - Part II (Riccardo Barella)
12:30 - 14:00	lunch time				
14:00-14:30	Introduction and scopes (Simonetta)	Quantum ML Applied to EO (Silvia Ullo)	Physics Based AI in EO part 1 (Fabio Del Frate)	Marine macroalgae extraction using remote sensing and AI (Yuan Guo)	Presentations by students/round table
14:30 - 15:30	THE ERA OF ARTIFICIAL INTELLIGENCE - From Radiomics and Biophotonics to Egyptology, Palaeontology, Space and beyond ...to boldly go where no algorithm has gone before... (Andrea Barucci)				
15:30 - 16:00	coffee break				
16:00 - 17:30	What is AI? An overview of Artificial Intelligence techniques and applications (Alessandro Montaghi)	Quantum ML Applied to EO - Lab and exercises (Silvia Ullo/Francesco Mauro)	Physics Based AI in EO part 2 (Fabio Del Frate)	Marine macroalgae extraction using remote sensing and AI (Yuan Guo)	
				Dinner (TBD)	