

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)	