19-23 maggio 2025 School on Artificial Intelligence applications for Earth Observation

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