



**I Seminari su “Information Technology Outlook” – Dottorato di Ricerca in Informatica e Matematica**

**AVVISO DI SEMINARIO**



**Dino Ienco, PhD**

INRAE (National Research Institute on Food  
Agriculture and Environment)- Joint Research Unit  
TETIS - Montpellier, France

**Giovedì 7 ottobre 2021**

**ore 15:00**

**Sala consiglio, piano 7**

**Combining AI and Earth Observation data to deal with land cover mapping**

The huge amount of data currently produced by modern earth observation(EO) missions has raised up new challenges for the remote sensing communities. EO sensors are now able to offer (very) high spatial resolution images with revisit time frequencies never achieved before. Additionally, considering successive acquisitions of satellite imagery over the same area, make it possible to organize this data as satellite image time series (SITS), to monitor phenomena over time. In this talk I will give some examples of modern machine learning techniques applied to EO data with applications related to the agricultural and environmental domains as well as connections between the models outputs and their interpretability.

**Short bio.** Dino Ienco has been a Research Fellow at INRAE, UMR TETIS in Montpellier since 2011. He conducts research studies in the field of data science and machine learning. His research activities include the design and development of new algorithm for pattern mining, complex data clustering, semi-supervised as well as supervised classification approaches with applications to several types of data, such as graphs, texts, images and transactional one. More recently, he has focused his efforts on spatio-temporal data analysis with a particular emphasis in Earth Observation (EO) data (i.e. remote sensing) dealing with methodological challenges like image classification, satellite image time series analysis and heterogeneous (multi-spectral, multi-temporal and multi-scale) information fusion with applications to several environmental domains like: agricultural land cover mapping, forest monitoring, biophysical variable extraction, natural habitat monitoring and agricultural yield prediction.