



L'11 Giugno, alle ore 10.00 presso l'aula Bassini, piano terra AREA della Ricerca CNR Via Bassini 15

Dino Ienco, ricercatore presso IRSTEA - TETIS , Montpellier

terrà il seminario intitolato

Remote Sensing Time Series analysis under the Data Mining lens: Characterization of Changes and Cropland Mapping

Abstract:

Nowadays, a huge amount of high resolution satellite images are freely available. Such images allow researchers in environmental sciences to study different natural and agricultural phenomena considering their evolution over time. Recently, the upcoming technology will lead time series analysis of high resolution optical images into a new level of complexity due to the huge volume of information produced. To deal with these constraints we need to develop new automatic techniques in order to extract interesting and useful knowledge from time series images. Considering this scenario, I will present two applications in which the use of data mining techniques help to analyze big volumes of time series satellite images considering both the spatial and temporal dimensions of the data. The first application involves the study of evolution patterns coming from natural and semi-natural habitats. In this task we consider a time series of remote sensing images in order to characterize and summarize the different type of evolutions. The second application is devoted to the automatic classification of land use. In this study, data mining techniques are employed to correctly exploit temporal information since standard classification models fail to consider this dimension in their analysis.