Detection of vegetation pattern dynamics

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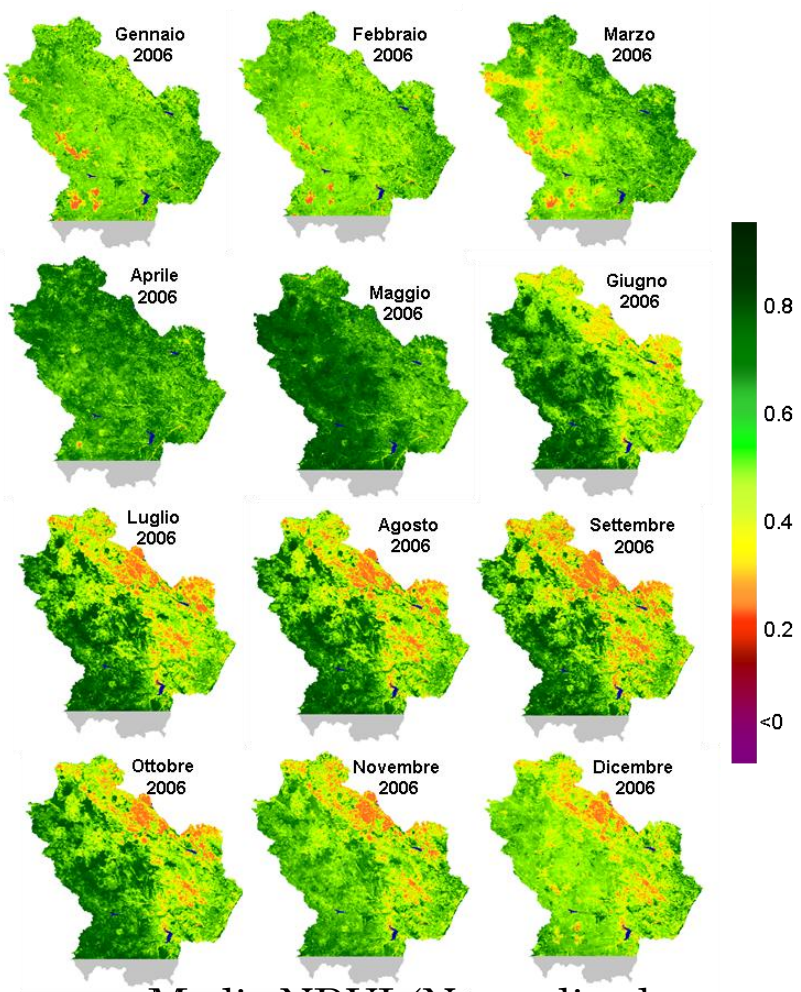
STUDY THEME:

Remote sensing in agriculture

Estimating crop evapotranspiration at large scale

Aims:

spatio-temporal monitoring of vegetation



Modis NDVI (Normalized Difference Vegetation Index) – year 2006

DATA:

- Satellite data (vegetation indices):

23 MODIS-NDVI images (spatial resolution of 250 m**)-year 2007**

- Data format: TIF files
- File size: 230 kb
- Projection: Integerized Sinusoidal (ISIN)

- In situ data (meteorological data)

Mean monthly temperatures over 2007 from a network of 30 stations

- Data format: file excel dataset

Methods:

- Average values extraction from sub-masks
- Spatial correlations (e.g.: scatterplot of raster data, variogram)
- Temporal correlations
- Interpolation

Expected results:

To estimate crop coefficient values through remote sensed vegetation indices in order to generate spatially distributed values of crop coefficient