



## **Satellite time series and in situ data analysis for assessing land slide susceptibility after forest fire: The case study of Pisticci 2012 fire**

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Moderate Resolution Imaging Spectroradiometer (MODIS), ASTER, Landsat TM Satellite time series and in situ data analysis have been conducted to assess land slide susceptibility after the large forest fire which affected the Pisticci Municipality in August 2012. These activities are in the framework of the FIRE\_SAT project funded by the Civil Protection of the Basilicata Region in order to set up a low cost methodology for fire danger monitoring and fire effect estimation.

This project is mainly based on the use of satellite time series available at low cost or free of charge from the NASA website to set up reliable data processing for the pre-operative monitoring of the Basilicata ecosystems. Novel data processing techniques have been developed by researchers of CNR-IMAA for the operative monitoring of fire. In this paper we only focus on the estimation of fire severity we performed after the 2012 summer using satellite time series and in situ data analysis. In particular, Field measurements and laboratory analysis, made on several sample sites selected in area characterized by different levels of fire severity, well fit together confirming the increase in landslide susceptibility after the fire event.