



## **Integrated GPS and topographic surveys of a large landslide area near Picerno (Basilicata Region, Southern Italy)**

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In order to evaluate the morphological evolution of a the landslide area near Picerno (South Italy), in November 2006 a twenty markers network has been established. In each point of measure a marker allowing a forced centring mount for GPS antenna and reflecting prism for topographic measure was installed. All the measures are referred to a marker located in a stable area. The stability of the position of the reference point has been verified at each campaign of measurement computing his coordinates as a point of a wider GPS network based also on stations belonging to the Italian National GPS Network of the Italian Space Agency (ASI). In order to reconstruct the velocity field of the investigated area, starting from December 2006 GPS and topographic measures surveys have been carried out periodically, on a monthly basis interval. Each GPS session of measure is at least 3 hours long, while the topographic measures, obtained by means of full automatic station, are obtained, at each point, as the average of a sequence of measures. Moreover, some areas of the landslide has been analyzed by means of multi-temporal DTM reconstructed by GPS Kinematics data.