



## **Investigation of the kinematic pattern and spectral characteristics of Mandria landslide (Greece)**

**S. Pytharouli** (1,2) and S. Stiros (1)

(1) Geodesy Lab., Dept. of Civil Engineering, University of Patras, Patras, Greece, (2) Now at the Dept. of Civil Engineering, University of Strathclyde, Glasgow, UK  
(stella.pytharouli@strath.ac.uk / Fax: +44 141 552 0067 / Phone: +44 548 3168)

The long-term kinematics of major landslides are poorly known for detailed monitoring records are up to a few years only. In order to shed some light on the details of the kinematics of a major, deep-seated creeping landslide in Greece we analyzed its unique, >20 year long monitoring record. Data consisted of >550 epochs of observations of 7 geodetic control points. The analysis was based on spectral, statistical and regression methods. Our conclusion is that (1) exponential equations can be used to describe the kinematics of this landslide, (2) a certain constant defining the overall movement and its kinematics can be assigned to each specific point, (3) small-scale kinematic anomalies have a clear periodic pattern, at least as far as minor disturbances are concerned, and (4) results seem independent of the scale of observations.