



UNIVERSITÀ
DEGLI STUDI
FIRENZE

FLORE

Repository istituzionale dell'Università degli Studi di Firenze

PS-InSAR time series analysis as a tool for measuring landslide dynamics

Questa è la Versione finale referata (Post print/Accepted manuscript) della seguente pubblicazione:

Original Citation:

PS-InSAR time series analysis as a tool for measuring landslide dynamics / Pancioli V.; Lu P.; Catani F.; Cigna F.. - In: GEOPHYSICAL RESEARCH ABSTRACTS. - ISSN 1607-7962. - ELETTRONICO. - 11:(2009), pp. 13900-13900.

Availability:

The webpage <https://hdl.handle.net/2158/406293> of the repository was last updated on

Terms of use:

Open Access

La pubblicazione è resa disponibile sotto le norme e i termini della licenza di deposito, secondo quanto stabilito dalla Policy per l'accesso aperto dell'Università degli Studi di Firenze (<https://www.sba.unifi.it/upload/policy-oa-2016-1.pdf>)

Publisher copyright claim:

La data sopra indicata si riferisce all'ultimo aggiornamento della scheda del Repository FloRe - The above-mentioned date refers to the last update of the record in the Institutional Repository FloRe

(Article begins on next page)



PS-InSAR time series analysis as a tool for measuring landslide dynamics

V Pancioli, P Lu, F Catani, and F Cigna

University of Firenze, Earth Sciences Department, Firenze, Italy (valeria.pancioli@unifi.it)

PS-InSAR analysis is today a widely accepted methodology for the accurate measurement of ground displacements related to processes with slow kinematics, such as ground settlement, subsidence, uplift and slow moving landslides.

The advanced use of PS-InSAR information has, however, very promising potential also for the understanding of the landslide behavior in time and to study the correlations between such dynamics and the possible causative factors.

We offer here some examples of PS-InSAR based analysis of displacement time series relative to deep-seated landslides and we discuss the advantages and the possible add-ons offered by the use of techniques based on the automated or semi-automated recognition of deviations from regular, expected trends. We also discuss the new perspectives that will be offered in the next years with the availability of shorter revisiting time space-borne SAR platforms as e.g. TerraSAR-X and COSMO.