

Home

Online Library

- Recent Papers
- Volumes
- Library Search
- Title and Author Search

RSS Feeds

General Information

Submission

Review

Production

Subscription

#### Journal Metrics

 not applicable

SCOPUS<sup>®</sup> SNIP 0.287

SCOPUS<sup>®</sup> SJR 0.054

[Definitions](#)

ARCHIVED IN



[Volumes](#) [Contents of Volume 24](#)

Adv. Geosci., 24, 35-44, 2010  
www.adv-geosci.net/24/35/2010/  
doi: 10.5194/adgeo-24-35-2010

© Author(s) 2010. This work is distributed  
under the Creative Commons Attribution 3.0 License.

## Near surface geophysics techniques and geomorphological approach to reconstruct the hazard cave map in historical and urban areas

M. Lazzari, A. Loperte, and A. Perrone  
CNR-IBAM C/da S.Loja Zona Industriale Tito Scalo (PZ) 85050, Italy

**Abstract.** This work, carried out with an integrated methodological approach, focuses on the use of near surface geophysics techniques, such as ground penetrating radar and electrical resistivity tomography (ERT), and geomorphological analysis, in order to reconstruct the cave distribution and geometry in a urban context and, in particular, in historical centres. The interaction during recent centuries between human activity (caves excavation, birth and growth of an urban area) and the characters of the natural environment were the reasons of a progressive increase in hazard and vulnerability levels of several sites. The reconstruction of a detailed cave map distribution is the first step to define the anthropic and geomorphological hazard in urban areas, fundamental basis for planning and assessing the risk.

[Full Article in PDF](#) (PDF, 4929 KB)

Citation: Lazzari, M., Loperte, A., and Perrone, A.: Near surface geophysics techniques and geomorphological approach to reconstruct the hazard cave map in historical and urban areas, Adv. Geosci., 24, 35-44, doi:10.5194/adgeo-24-35-2010, 2010. [Bibtex](#) [EndNote](#) [Reference Manager](#) [XML](#)



#### Search ADGEO

Full Text Search [»»](#)

Title Search [»»](#)

Author Search [»»](#)

#### News

- Please Note: Updated Reference Guidelines

#### Recent Papers

01 | ADGEO, 22 Nov 2010: Tropopause and jetlet characteristics in relation to thunderstorm development over Cyprus

02 | ADGEO, 22 Nov 2010: Probabilistic prediction of raw and BMA calibrated AEMET-SREPS: the 24 of January 2009 extreme wind event in Catalunya

03 | ADGEO, 15 Nov 2010: Investigation of trends in synoptic patterns over Europe with artificial neural networks