



2020 IMEKO TC-4 INTERNATIONAL CONFERENCE ON

METROLOGY FOR ARCHAEOLOGY AND CULTURAL HERITAGE

TRENTO, ITALY | OCTOBER 22-24, 2020

CALL FOR PAPERS *for the Special Session on* MULTISCALE AND MULTITEMPORAL HIGH RESOLUTION REMOTE SENSING AND NON-DESTRUCTIVE TESTING FOR ARCHAEOLOGY AND MONUMENTAL HERITAGE: FROM RESEARCH TO PRESERVATION

ABSTRACT

The availability of high resolution remote sensing and non destructive testing techniques provides a multiscale and multitemporal approaches in the study of ancient settlements, landscapes the reconstruction of their development over centuries and their preservation.

Nowadays, the research in both landscape archaeology and diagnosis conservation needs the integration of different techniques of high resolution remote sensing: satellite (optical and radar data), aerial (photos, IR and Lidar data) from airplanes and UAVs, ground (integration of different geophysical techniques, field walking, DGPS topographical surveys), non destructive testing. The session aims to introduce new field surveys, new approaches and new integrations and analyses of geo-archaeological data for the study of the archaeological sites in order to enhance the knowledge of the investigated area related to historical reconstruction, production of tools for preventive archaeology and preservation of archaeological and monumental heritage; about the last task very useful are also non-invasive diagnosis through micro-geophysics.

TOPICS

Topics include, but are not limited to:

- Satellite remote sensing for archaeology using optical and radar data: new perspectives, semiautomatic and automatic approaches for extracting cultural information, study of the interconnection between environmental changes and dynamics of human frequentation;
- Aerial archaeology: from historical and traditional air-photos to IR and Lidar data;
- Integration of ground remote sensing techniques (geophysical prospecting) and field walking and DGPS topographical surveys for the study of ancient settlements and landscapes;
- Integration of non-invasive methods for preservation and protection of monumental heritage (micro-geophysics);
- Integrated Geophysical Methods in archaeological sites;
- Ancient hazard risk in the geo-archaeological record, as floods, landslides, earthquakes and tsunamis;
- Climatic and anthropogenic causes of ancient environmental and vegetational changes;
- Managing hillslope instability and soil erosion problems in the past.
- Application and integration of non-invasive EM methods (e.g. GPR, HSR, IR Thermography, etc.) in NDT for in situ analysis of ancient buildings.

ORGANIZED BY



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SPECIAL SESSION #11



<http://www.metroarcheo.com/special-session-11>



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