



## **The use of LiDAR and remote sensing data in the archaeological topography reconnaissance. Study case Moldavian Plateau**

Silviu Costel Doru and Mihai Niculita

Alexandru Ioan Cuza University of Iasi, Faculty of Geography and Geology, Department of Geography, Iasi, Romania

Archeological landscapes, such as settlements, roads, defensive walls, fortresses can provide good evidence of past human activity. Alongside archeological survey over the last few decades, remote sensing techniques are bringing new powerful tools to help archaeologists and geographers in their quest of discovery and exploration of human footprints on Earth's surface. Our aim is to identify archeological remains in Moldavian Plateau using remote sensing data, LiDAR and aerial photography from different period, starting with CORONA imagery to recent orthophotomaps. These data are widely utilized to gain a better understanding of historical landscapes and their past uses by ancient peoples. We have chosen several types of archeological remains, mainly fortified settlements, fortresses, burial mounds and defensive walls dating from Chalcolithic to Medieval Period. A fusion technique was established for the extraction of archeological topography based on Romanian aerial imagery, CORONA imagery, LiDAR and high resolution satellite image. Our results could be further used to for supplementing the information acquired through geophysical surveys in order to completely characterize the initial topography of the archeological sites.