

The use of DInSAR satellite differential interferometry techniques in the mapping and monitoring of areas affected by collapsed structures and infrastructures, the application of data digitization and information technology in the case studies of the Amalfi Coast and the Sorrento Peninsula.

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This research study deals with the analysis of post-earthquake damage to buildings and infrastructures using satellite detection techniques, Differential SAR Interferometry, DInSAR, and the subsequent digitization and dissemination of the results in the case studies of the Amalfi Coast and the Sorrentine Peninsula.

The theoretical backgrounds were the interferometric techniques for the assessment of soil displacements, structures and infrastructures and the engineering methods for the assessment of damage, Post Seismic, Permanent Residual Displacements, PS-PRD, on a GIS basis.

The purpose of the research was to apply digitization and information technology by integrating them with interferometric techniques and demoethonoanthropology.

The objectives of the study were to apply the information, deriving from interferometric techniques, to demo-ethno-anthropology and to the digitalization of the built and naturalistic environment.

The research methods were qualitative and quantitative, through sample analysis and the use of DInSAR techniques.

The scientific evidence that emerged in this study revealed the demoanthropological and digital connections through the use of DInSAR interferometric techniques, also for the reconstruction of the damage scenarios of individual buildings, or agglomerations of buildings.