

ADA Tool for Satellite InSAR-Based Ground Displacement Analysis: The Granada Region

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Abstract : Geohazard prone areas require continuous monitoring to detect risks, understand the phenomena occurring in those regions and prevent disasters. Satellite interferometry (InSAR) has come to be a trustworthy technique for ground movement detection and monitoring in the last few years. InSAR based techniques allow to process large areas providing high number of displacement measurements at low cost. However, the results provided by such techniques are usually not easy to interpret by non-experienced users hampering its use for decision makers. This work presents a set of tools developed in the framework of different projects (Momit, Safety, U-Geohaz, Riskcoast) and an example of their use in the Granada Coastal area (Spain) is shown. The ADA (Active Displacement Areas) tool have been developed with the aim of easing the management, use and interpretation of InSAR based results. It provides a semi-automatic extraction of the most significant ADAs through the application ADAFinder tool. This tool aims to support the exploitation of the European Ground Motion Service (EU-GMS), which will provide consistent, regular and reliable information regarding natural and anthropogenic ground motion phenomena all over Europe.

Keywords : ground displacements, InSAR, natural hazards, satellite imagery

Conference Title : ICRSGES 2021 : International Conference on Remote Sensing in Geological and Environmental Sciences

Conference Location : Singapore, Singapore

Conference Dates : November 18-19, 2021