



First results on DInSAR assessment of landslides activity in the Guadalfeo river valley (Granada, South of Spain)

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First results obtained using DInSAR techniques are here presented showing low to very low velocity of two deep seated planar slides on metamorphic rocks of the Alpujarride Complex are presented. The slides were considerable inactive after field and aerial photography survey along the last ten years, despite the observation of fresh geomorphic features corresponding to typical active landslides.

The DInSAR assessment was obtained using ERS-1 and ERS-2 descending RADAR images corresponding to the period December 1993 to December 2000. In total we considered 25 images and 72 differential interferograms. The results show velocities of 6mm/year in the Lanjarón slide and 7 mm/year in the Tablones slide.

The consequences of these landslides, in case of full development toward its final stages would be in the case of the Lanjarón slide the cut of the main road of the Alpujarra at the southern border of Sierra Nevada, an area where 41 villages and a high number of tourist resources are widespread because of its high pictorial landscapes. In the case of the Tablones slide, its further development could invade the Guadalfeo river “rambla” channel giving place to flooding conditions affecting the villages and cultivations existing above the Rules dam.