Advanced monitoring techniques for mapping land displacement on the Venice coastland with satellite SAR data

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Abstract In this contribution we review the monitoring techniques applied during the last 20 years in the Venice coastland for the control of land subsidence, with particular emphasis on satellite Synthetic Aperture Radar (SAR) interferometry using images acquired by the ERS-1/2, ENVISAT and TerraSAR-X sensors.

Key words monitoring; SAR interferometry; land subsidence; lagoon environment; Venice