THE STUDY OF GROUND SUBSIDENCE AND UPLIFT IN ORUMIEH LAKE, NORTHWEST IRAN, USING SAR INTERFEROMETRY

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ABSTRACT:

Recent observations using permanent GPS stations around Orumieh Lake in northwestern Iran have revealed a surprising vertical displacement in the region, including moderate uplift at the eastern side of the lake and cm-level subsidence at the western side of the lake. However, due to their poor spatial coverage, GPS data alone cannot robustly constrain the source of the deformation in the region. Here we use interferometric observations provided by the Envisat satellite to obtain a more complete picture of ground motion around Orumieh Lake. Detailed deformation maps provided by InSAR complement GPS observations, placing more robust constrains on source parameters of the deformation.

TOPIC: Microwave remote sensing
ALTERNATIVE TOPIC: Microwave remote sensing