عنوان مقاله:

GROUND DISPLACEMENT AND BUILDING DAMAGE ESTIMATION OF THE 2017 KERMANSHAH EARTHQUAKE USING SAR REMOTE SENSING

محل انتشار:

هشتمین کنفرانس بین المللی زلزله شناسی و مهندسی زلزله (سال: 1398)

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نویسندگان:

Sadra Karimzadeh - *Assistant Professor, University of Tabriz, Iran*

Masashi Matsuoka - *Professor, Tokyo Institute of Technology, Tokyo, Japan*

خلاصه مقاله:

We used two synthetic aperture radar (SAR) datasets with different resolution to monitor the Kermanshah earthquake displacements and the buildings in Sarpole-Zahab town. We have obtained two high resolution dual-polarized (HH and HV) ALOS-2 images in stripmap (SM) mode and three dual-polarized (VV and VH) Sentinel-1 images in interferometric wide (IW) mode from ascending orbits. The incidence angle of ALOS-2 and Sentinel -1 datasets were 36.2° and 38.9°, respectively. Temporal baseline of ALOS-2 dataset is 42 days, whereas pre-event and co-seismic temporal baselines of Sentinel-1 dataset are 13 and 18 days, respectively. Human activities after disasters increase and deteriorate the damage proxy maps which sometimes make the damage proxy maps meaningless. Thus, we need post-event images with shortest gaps with the event. Since the revisit cycle of ALOS-2 is rather large, we only use two ALOS-2 images to calculate ground displacement

کلمات کلیدی:

SAR remote sensing, Kermanshah earthquake, Damage detection