

ADVANCES ON REPEATED SPACE-BORNE SAR INTERFEROMETRY AND ITS APPLICATION TO GROUND DEFORMATION MONITORING - A REVIEW

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ABSTRACT:

Differential synthetic aperture radar interferometry (D-InSAR), is a remote sensing technique that could measure earth surface deformation and has gained extensive use along with its development as a technique and subject, from classical to advanced D-InSAR. The main principles of both were concisely depicted and the differences and relations between highlighted. Then an introductory review concerning applications of InSAR technology in China and obstacles therein to make the technique operational for coal-mining induced deformation was made. The other method developed for a more accurate InSAR application, consisting in GPS assisted and multi-platform SAR interferometry, atmospheric artefact modelling are introduced, and ended up with the conclusion part where the main limitations were put forward.

TOPIC: Microwave remote sensing

ALTERNATIVE TOPIC: Microwave remote sensing