



CALL FOR PAPERS
IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing
Special Issue on
“Advanced SAR/InSAR technologies for surface deformation change”

Land subsidence and structural deformation under natural and anthropogenic activities are threatening infrastructural health and public safety. Synthetic aperture radar (SAR) and Interferometric SAR (InSAR) have been widely used for deformation monitoring in various fields. The second-generation SAR satellite missions, such as Sentinel-1, TerraSAR-X, PAZ, COSMO-SkyMed first and second generation, SAOCOM, LuTan-1 as well as commercial constellations including Umbra, Capella Space and ICEYE provide invaluable insights into geophysical dynamics at different scales. While innovative InSAR processing algorithms and systems are continuously being developed, the research of SAR/InSAR technology can further have a positive impact on risk assessment, early warning and monitoring. However, there remain numerous unresolved issues and emerging challenges that necessitate further investigation.

This special issue will aim to address these challenges while providing a platform for researchers and practitioners to share their latest findings, methodologies, and technologies related to SAR/InSAR systems, data processing, and innovative applications. The broad topics include (but are not limited to):

- Advanced SAR/InSAR algorithms for surface deformation measurement.
- SAR-based detection and monitoring algorithms.
- AI for InSAR data processing and interpretation.
- Innovative systems at different bands, platform and resolutions.
- Integration of SAR/InSAR data with other datasets.
- Applications in the monitoring of subsidence, structural deformation, landslides, and etc.
- Other related topics.

Schedule

01 Jun, 2024, Submission system opening

31 May, 2025, Submission system closing

Format

All submissions will be peer reviewed according to the IEEE Geoscience and Remote Sensing Society guidelines. Submitted articles should not have been published or be under review elsewhere. Submit your manuscript on <http://mc.manuscriptcentral.com/jstars>, using the Manuscript Central interface and select the “**Advanced SAR/InSAR technologies for surface deformation change**” special issue manuscript type. Prospective authors should consult the site <https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=9082768> for guidelines and information on paper submission. All submissions must be formatted using the IEEE standard format (double column, single spaced). Please visit http://www.ieee.org/publications_standards/publications/authors/author_templates.html to download a template for transactions. Please note that as of Jan. 1, 2020, IEEE J-STARS has become a fully open-access journal charging a flat publication fee \$1,250 per paper.

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