Call for Papers

IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing (JSTARS)

Special Issue on Synthetic Aperture Radar (SAR) – New Techniques, Missions and Applications

Submission Deadline: October 31, 2014

Aims and scope

Synthetic aperture radar (SAR) is a well-established remote sensing technique that enables high resolution images of the Earth and other planetary surfaces to be acquired independent of sunlight illumination and weather conditions. SAR has proven to be a unique information source for a large number of applications ranging from environmental studies to disaster monitoring and reconnaissance. The coherent combination of multiple SAR images enables, moreover, the generation of advanced information products like large scale deformation maps, digital elevation models, or even 3-D tomograms of semi-transparent volume scatterers. The increased imaging capabilities of next generation SAR sensors will further enhance their application spectrum and will make them an ideal tool to regularly monitor the Earth system and its intricate dynamics.

The call for this special issue is associated with the 10th European Conference on Synthetic Aperture Radar (EUSAR), held in Berlin, Germany, in June 2014 (www.eusar.de). EUSAR is the largest conference worldwide entirely dedicated to the development of synthetic aperture radar technologies, techniques and their remote sensing applications. Over the past 20 years, EUSAR has established an international forum that brings together engineers and scientists to exchange information on the latest developments of SAR-related topics.

The objective of the special issue is to select outstanding contributions on recent advances in the field of synthetic aperture radar. The call is open to all researchers. EUSAR attendees are encouraged to submit an extended presentation of their conference paper, which should include more detailed derivations, analyses and experimental results.

Contributions for this special issue are welcome on the following topics:

- current and future airborne and spaceborne SAR systems and missions
- new SAR applications, products and information retrieval algorithms
- innovative SAR sensors, concepts, techniques and modes
- advances in ground-based and inverse SAR
- bistatic, multistatic and passive SAR
- SAR calibration, validation and verification
- SAR polarimetry, interferometry, tomography and holography
- advanced SAR signal processing techniques
- digital beamforming, GMTI and MIMO-SAR
- SAR data evaluation and modelling

Important dates

Manuscripts due: October 31, 2014

Expected publication date: November, 2015

Submission

All submissions will be peer reviewed according to the IEEE and Geoscience Remote Sensing guidelines. Submitted manuscripts should not have been published or be under review elsewhere. Manuscripts should be submitted online at http://mc.manuscriptcentral.com/jstars using the Manuscript Central interface. Prospective authors should consult this site for guidelines and information on paper submission. Please select «Special Issue: Synthetic Aperture Radar (SAR) – New Techniques, Missions and Applications» as manuscript type. Information about the Journal can be found at http://www.grss-ieee.org/Publications/JSTARS/. Please note that IEEE JSTARS applies a mandatory excessive page length charge of $200 per page (beginning with page 7).

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