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

Special Issue on
"Going Deeper in Multi-Source Fusion on Earth Observations: Data, Model, and Application"

With the increasing availability of remote sensing datasets from various platforms (e.g., airplanes, satellites, and unmanned aerial vehicles) with different types of sensors (e.g., multispectral, hyperspectral, light detection and ranging (LiDAR), synthetic aperture radar (SAR), etc), multi-source information processing has attracted growing attention. The joint utilization of multi-source remote sensing data has also been demonstrated to be effective in diversified applications across the remote sensing community. Despite recent progress in information fusion approaches and applications, there remain significant challenges in practice: (1) heterogeneity between sensor/modality (inconsistent size and resolution of data, different data structures, and uncorrelated physical properties); (2) domain drift between-in changeable scenes (spectral shifts, spatial variations); (3) high computational complexity of models. It is challenging to fully explore the potential of multi-source information across sensors, modalities, and time over different geographic regions. Therefore, this special issue aims to provide a venue for advanced research in innovative methodologies and applications of multi-source information on Earth observations.

The broad topics include (but are not limited to):

- Advanced multi-sensor data processing for radiometric and geometric calibration, registration, and quality assurance, etc.
- Multi-source data fusion, super-resolution, and relevant evaluation metrics.
- Classification, segmentation, and detection methods based on multi-sensor data.
- Light-weighted incremental learning model and knowledge integration system based on multi-source data.
- Strategies for cross-temporal/scene remote sensing image fusion, classification, and segmentation.
- Related Earth observation applications, e.g., agriculture, forestry, wet-land, etc.
- Technical reviews on the related topics.

Schedule

Oct 1, 2021	Submission system opening
Apr 30, 2022	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 "**Going Deeper in Multi-Source Fusion on Earth Observations: Data, Model, and Application**" 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.

Guest Editors

Mengmeng Zhang	Beijing Institute of Technology, China (mengmengzhang@bit.edu.cn)
Xian Sun	Chinese Academy of Sciences, China (sunxian@aircas.ac.cn)
Jun Zhou	Griffith University, Australia (jun.zhou@griffith.edu.au)
Paul Scheunders	University of Antwerp, Belgium (paul.scheunders@uantwerpen.be)
Wei Li	Beijing Institute of Technology, China (leewei36@gmail.com)
Qian Du	Mississippi State University, USA (du@ece.msstate.edu)