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

Special Issue On
Improving Quantity and Quality of Labeled Samples for Remote Sensing Data Analysis

Remote sensing data have been used in a wide spectra of application areas, including urban environment detection, ecological agriculture and forestry protection, military target reconnaissance, etc. However, issues of quantity and quality of labeled samples, including few labeled samples, missing labeled samples, inaccurate samples, and imbalanced samples, always lead to model overfitting or weak generalization, and have become a bottleneck for the development of remote sensing applications. On the other hand, most existing techniques do not consider the impact of weakly labeled samples since they are developed based on publicly available experimental data with ideal imaging conditions and ample labeled samples. In practice, there is a large amount of data needed to be labeled, and it is an extremely challenging task, if possible at all, to guarantee that all samples are perfectly labeled. Thus, it is urgent to investigate and collect methodological contributions in terms of effective techniques on labeling issues for remote sensing data analysis.

In this special issue, we invite the most recent advancements in (but not limited to) the following topics:
- Analysis on quantity and quality issues of labeled samples with different remote sensing sensors, e.g., hyperspectral, multispectral, optical images and synthetic aperture radar (SAR) data, etc.
- Improvement on quality and quantity of remote sensing data, e.g., few label-samples, missing labeled samples, inaccurate samples, and imbalanced samples, etc.
- Classification and detection methods for few labeled samples or missing/imbalanced samples with advanced feature extraction/classification/detection techniques
- Strategies for cross-temporal/cross-scene remote sensing image classification
- Related remote sensing applications, e.g., agriculture, forestry, wet-land, etc.
- Technical reviews on the related topics

Schedule
July 1, 2020	Submission system opening
December 31, 2020	Submission system closing
2020-2021	Publication date

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 "Improving Quantity and Quality of Labeled Samples for Remote Sensing Data Analysis" special issue manuscript type. Prospective authors should consult the site http://www.grss-ieee.org/publication-category/jstars/ for guidelines and information. All submissions must be formatted using the IEEE standard format. For a transactions template in this format please consult the site http://www.ieee.org/publications_standards/publications/authors/author_templates.html. Note that as of January 1, 2020, J-STARS has become a fully open-access journal, charging a flat publication fee $1250 per paper.

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