Special Issue

Deep Representation Learning in Remote Sensing

Message from the Guest Editors

The process of learning representations of data for the purpose of downstream tasks has received much attention in the last decade. In the field of computer vision, transfer learning has become a common practice, with representations learned on the ImageNet dataset often used as a starting point for fine-tuning. Remote sensing images differ from natural images in some crucial ways: they contain numerous objects as opposed to single subjects, they are often multispectral in nature, and they can also be treated as a time-series. As such, specific datasets and techniques are required for effective representation learning in remote sensing. Recent advances in self-supervised and semi-supervised learning show promise in label-scarce and data-rich settings; however, there have been few attempts to specifically adapt these approaches to remote sensing and leverage the inherent spectral, spatial, and temporal structure of remote sensing data. The aim of this Special Issue is to present novel representation learning modalities, algorithms, and datasets for remote sensing imagery. Topics may cover any type of imagery and downstream tasks.

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Deadline for manuscript submissions

closed (1 April 2023)

About the Journal

Message from the Editor-in-Chief

Remote Sensing is now a prominent international journal of repute in the world of remote sensing and spatial sciences, as a pioneer and pathfinder in open access format. It has highly accomplished global remote sensing scientists on the editorial board and a dedicated team of associate editors. The journal emphasizes quality and novelty and has a rigorous peer-review process. It is now one of the top remote sensing journals with a significant Impact Factor, and a goal to become the best journal in remote sensing in the coming years. I strongly recommend *Remote Sensing* for your best research publications for a fast dissemination of your research.

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