Machine Learning Using High-Resolution Remote Sensing Datasets

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Deadline for manuscript submissions:
31 July 2021

Message from the Guest Editors

Remote sensing data have become higher resolution and more accessible in recent years. The rapid developments in machine learning technologies have led to innovative applications with remote sensing data. Although machine learning has shown great potential for remote sensing applications, the lack of high-quality training data, the explainability, and the reproducibility have limited the wide adoption of machine learning in remote sensing communities. Fortunately, recent efforts in building benchmark training data for remote sensing applications and explainable machine learning technologies are changing the landscape of machine learning applications in remote sensing communities. This Special Issue aims to showcase innovative research using machine learning and remote sensing data in climate and environmental studies as well as human–landscape dynamics and the Anthropocene. Topics of interest include, but are not limited to:

- climate informatics
- land use/land cover classification
- creating benchmark machine learning (ML) training data
- historic environmental data
- explainability of ML models for environmental studies
- automated feature extraction and/or classification

Special Issue