## **Call for Papers**

Themed Series of APSIPA Trans. on Signal and Information Processing on

## "Advanced Machine Learning Techniques for Remote Sensing: Algorithms and Applications"

With the ongoing development of Earth observation techniques, remote sensing (RS) data has grown exponentially over the past few decades. RS data has a wide range of applications in land cover mapping, urban planning, environmental monitoring, agriculture investigation, and disaster assessment. In recent years, enormous machine learning (ML) models and algorithms have been proposed to facilitate RS data processing and information extraction, and new methods are still emerging.

This themed series aims to promote further research on image processing (restoration, enhancement and denoising), classification, object detection, multi-temporal image analysis and information fusion of RS data. We welcome submissions on emerging topics, advanced ML algorithms, and novel applications of RS data. Research topics of interest include but are not limited to:

- Remote sensing data processing based on machine learning
  - o Cloud removal and image restoration
  - Super-resolution
  - Pansharpening
  - o Spatial-temporal fusion
  - Multi-modal fusion
- Hyperspectral, multispectral image analysis with machine learning algorithms
  - Semantic segmentation
  - Scene classification
  - Change detection
  - Object detection and target detection
  - Feature matching
- Remote sensing data for environmental applications based on machine learning algorithms
  - Landslide/water/forest monitoring and mapping
  - o Environmental parameter retrieval
  - Remote sensing product downscaling
- Advanced Deep Learning Strategies for the Analysis of Remote Sensing Images
  - o Transfer learning
  - o Few-shot/Zero-shot learning
  - o Semisupervised and weakly supervised learning
  - o Explainable deep learning

Each paper submitted to this series will be reviewed with the first-come-first-serve principle. The target of the first round of decision-making is 5 weeks, and the period of the first round of revision is 2 weeks. The paper will be accepted between 8-12 weeks (depending on 1 or 2 revisions).

Once the submission window has closed, accepted papers ready for publication will be published online. The series will be accompanied by an editorial written by the guest editorial team. If a paper cannot be accepted within the publication window, it will be considered as a regular paper.

If you are interested in paper submission, please refer to: https://nowpublishers.com/Journal/AuthorInstructions/SIP.

Any further questions, please contact: <a href="mailto:simonpun@cuhk.edu.cn">simonpun@cuhk.edu.cn</a>

Submission Window: May 1, 2023 to October 31, 2023

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