Guest Editorial: Special Issue on Intelligent Interpretation of Remote Sensing Images: Theory, Methods and Applications

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This special edition of the Journal of Geodesy and Geoinformation Science (JGGS) presents a curated selection of papers that offer novel techniques in the realm of intelligent interpretation of remote sensing images. In recent years, tremendous efforts have been made across a wide spectrum including theory, models, algorithms, applications and datasets, etc. Such advancements have demonstrated their stunning performance in a variety of remote sensing topics spanning from general challenges like remote image classification and object detection, to highly specialized tasks such as autonomous situation awareness and disaster response. Moreover, such achievements have redefined disciplinary boundaries and also reshaped our education.

Yang et al.[1] embark on the discussion of the existing problems in Chinese earth observation satellites, and the comprehensive satellite with integrated payloads, the intensive microsatellite constellation and the intelligent observation satellite are proposed for future earth observation satellites. Guo et al.[2] delve into the registration of disordered multi-view point clouds leveraging soft trimmed deep networks, achieving improved robustness and accuracy. Wang et al.[3] exploit multi-task learning of semantic segmentation and height estimation to press the benefits of multi-modal remote sensing images. Therein, a Cross-Modal Feature Fusion model is designed to aggregate complementary information of different modalities. Wang et al.[4] synergize CNN and swin transformer via the cross-feature modulation module, which can capture long-range dependence and large receptive field resulting in improved performance. Yin et al.[5] concentrate their efforts on investigating the event of significant equatorial plasma bubbles (EPBs) suppression using multi-instrument observations.

This special issue garnered a total of 11 submissions. After undergoing rigorous peer review in line with the journal's standards, 5 papers have been accepted, resulting in an acceptance rate of 45.5%. We would like to thank the authors for their valuable contributions to this special issue as well as the reviewers, who contributed helpful suggestions for further improving the manuscripts' quality, and the editorial staff of the journal for their patient support during the editorial process.

References

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