# Special Issue

# Applications and Analysis of Satellite Cloud Imagery Using Deep Learning Techniques

## Message from the Guest Editors

With the improvements made in satellite remote sensing technology and imaging technology, the spatial resolution and timeliness of satellite cloud image data have been dramatically improved. These data provide potent means for monitoring disastrous weather, such as typhoons and rainstorms, and play a vital role in weather forecasts and short-term climate prediction. Over the past few years, deep learning techniques, such as convolution neural network, recurrent neural network and recent vision transformer, have achieved great success in various computer vision applications by automatically capturing and learning the key features of image data. Their powerful feature extraction abilities show great potential for analyzing complex spatio-temporal data like satellite cloud images. Potential topics include, but discussions are not limited to, the following areas:

- Satellite cloud image classification;
- Satellite cloud image restoration;
- Satellite cloud image prediction;
- Object detection of satellite cloud image;
- Spatio-temporal analysis of satellite cloud image;
- Applications to satellite cloud image

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### Editor-in-Chief

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