Special Issue

Recent Advance of Machine Learning in Biomedical Image Analysis

Message from the Guest Editors

In recent years, the field of biomedical image analysis has gained significant importance due to the growing availability of medical imaging data and the need for accurate and efficient analysis. Machine learning (ML) techniques have emerged as a promising solution to address these challenges, and have been widely used in various applications, such as computer-aided diagnosis, medical image segmentation, registration, retrieval, classification, etc. With an increase in data volume, advanced ML techniques are becoming increasingly important in biomedical image analysis. This Special Issue aims to present the latest research developments in machine learning applied to biomedical image analysis. The topics of interest include but are not limited to:

- Semantic segmentation of medical images;
- Computer-aided detection and diagnosis;
- Learning from weak or noisy annotations;
- Transfer learning and domain adaptation;
- Uncertainty estimation for medical diagnosis;
- Unsupervised deep learning and representation learning;
- Transformer-based medical image analysis method;
- Deep learning applications in radiology, pathology, endoscopy, dermatology, ophthalmology, and beyond.

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