Special Issue

Advanced Imaging Techniques for Neuroscience

Message from the Guest Editor

Innovative imaging techniques have revolutionized our ability to understand the brain's fine machinery, map complex behavioral and mental processes, and provide exceptional detail of disease states. As researchers pioneer new modalities and sequences of neuroimaging, clinicians are using next-generation imaging to help tailor therapies for disease. Radiologists play a crucial role in using advanced imaging techniques to better understand disease states and provide thoughtful differential diagnoses. Machine learning has recently entered the arena and is valuable for refining image quality and acquisition as well as large-scale data analysis.

This Special Issue will explore a wide array of advanced neuroimaging techniques and their applications. Topics include, but are not limited to, ultra-high-field MRI (≥7 T), functional MRI (fMRI), connectomics, MR spectroscopy, molecular imaging, perfusion imaging in stroke and brain tumors, PET/MR, vessel wall imaging, and machine learning.

The papers contributed to this Special Issue will provide valuable insights into the application of advanced neuroimaging techniques in a wide variety of pathologies.

Guest Editor

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Editor-in-Chief

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