Special Issue

Learning and Optimization for Medical Imaging

Message from the Guest Editors

We know that imaging plays an essential role in medicine today: radiography, different kinds of tomography, magnetic resonance and echography play a central role in modern medicine by supporting the diagnosis and treatment of a disease. At the heart of medical imaging technology, there is a sophisticated algorithm to reconstruct an image from the measured data, according to a physics-driven model of the measurement process. Moreover, post-processing applications such as denoising, deblurring, image segmentation and object detection are crucial to improve the effectiveness of diagnosis and treatment. Some of these problems are mathematically characterized as inverse problems. Optimization models and algorithms have been occupying a central stage in imaging applications; recently, deep learning approaches have been widely introduced to face the new challenges produced by the latest technologies. We invite authors to submit original research papers related to different medical imaging applications. Papers focusing on numerical optimization and regularization algorithms, as well as contributions proposing new, robust deep-learning-based techniques, are welcome.

Guest Editors

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Deadline for manuscript submissions

closed (31 May 2025)

Journal of Imaging

About the Journal

Message from the Editor-in-Chief

The imaging term, specific with journal, is to be considered in its broadest sense. Image processing, image understanding and computer vision are all terms related to imaging acquisition, its processing and the extraction of relevant information from the scene to obtain the underlying knowledge. All tasks related to the above items are oriented toward specific applications in a broad range of areas and topics. The *Journal of Imaging* is conceived as an efficient vehicle in the scientific community for the communication and transmission of the progress and research results in the topics covered.

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