

Special Issue

Applications of Artificial Intelligence and Medical Imaging

Message from the Guest Editor

This Special Issue focuses on the latest advancements in AI-driven medical imaging, with a particular emphasis on ultrasound imaging, multimodal radiomics, and applications in disease diagnosis and treatment. Topics of interest include, but are not limited to, the following:

- **Large foundation models for medical imaging:** The development and application of scalable AI models for ultrasound and other imaging modalities
- **Deep neural networks in medical imaging:** Innovations in network architectures, training methodologies, and deployment strategies for enhanced diagnostic performance
- **Ultrasound image processing:** AI-based techniques for image enhancement, segmentation, and interpretation in ultrasound imaging
- **AI in medical imaging:** Bibliometric and visualization analyses to identify research trends, challenges, and future directions
- **Ultrasonic medical disease diagnosis and treatment:** Intelligent systems for automated diagnosis, treatment, and monitoring using ultrasound data
- **Multimodal radiomics with AI:** The integration of radiomics and AI for predictive modeling, particularly in prenatal diagnosis and other clinical applications

Guest Editor

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About the Journal

Message from the Editor-in-Chief

The journal *Mathematics* publishes high-quality, refereed papers that treat both pure and applied mathematics. The journal highlights articles devoted to the mathematical treatment of questions arising in physics, chemistry, biology, statistics, finance, computer science, engineering and sociology, particularly those that stress analytical/algebraic aspects and novel problems and their solutions. One of the missions of the journal is to serve mathematicians and scientists through the prompt publication of significant advances in any branch of science and technology, and to provide a forum for the discussion of new scientific developments.

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