



JAIMS: Call for Papers Special Issue

“Translational Research on Artificial Intelligence (AI) in Medical Imaging”



Guest Editors

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Aims and Scope

This special issue will focus on translating AI research that aims to solve specific challenges in diagnostic imaging and promote medical imaging use cases for AI algorithm development and applications with clinical validation, deployment and performance monitoring in clinical practice.

Main Topics and Quality Control

The topics of interest include (but are not limited to):

1. Disease detection, disease classification, disease characterization, and disease screening using AI.
2. Treatment outcome prediction, treatment response evaluation using AI.
3. Image quality improvement, image acquisition acceleration using AI.
4. Radiation dose reduction, synthetic image generation across different modalities using AI.
5. Intelligent exam protocoling, diagnosis efficiency improvement, and workflow enhancement using AI.
6. Development of standards and methods for data curation, distribution, sharing, and management in AI medicine.
7. Experience in AI products for clinical integration and care management.

Important Dates

Submission of papers:	31 January 2021
Notification of review results:	31 March 2021
Submission of revised papers:	30 April 2021
Notification of final review results:	31 May 2021



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Submit Your Paper

All papers must be submitted via the Editorial Manager online submission and peer review system. Instructions will be provided on screen and you will be stepwise guided through the process of uploading all the relevant article details and files associated with your submission. All manuscripts must be in the English language.

To access the online submission site for the journal, please visit <https://www.editorialmanager.com/jaims/default.aspx>. Note that if this is the first time that you submit to the Journal of Artificial Intelligence for Medical Sciences, you need to register as a user of the system first.

NOTE : Before submitting your paper, please make sure to review the journal's [Author Guidelines](#) first.

Introduction of the Guest Editor(s)

Dr. Jie Deng is a senior MRI physicist, associate professor in the Department of Diagnostic Radiology at Rush University Medical Center, Chicago. She is dedicated to clinical, research, and administrative services in the MRI field for more than 15 years. Her clinical services cover ACR accreditation; MRI acceptance testing and annual testing; protocol development, optimization, and standardization; advanced MRI applications; QA/QC; MRI safety committee; investigator initiated or industry-sponsored research support, etc. On the research side, she takes the lead in establishing AI medical imaging research program that consists of a group of radiologists, clinicians, medical and graduate students, and medical physicists working collaboratively on various research projects for disease classification and image quality improvement. Dr. Deng serves as the principal investigator (PI) for two National Institutes of Health (NIH) grants. Her research efforts not only resulted in fruitful publications but also fostered multidisciplinary collaborations with other physician researchers across the institution. She authored and co-authored more than 40 peer-reviewed publications, and presented many times at national and international scientific meetings. In addition, Dr. Deng teaches MRI physics to radiology residents, reviews RSNA/AAPM course modules for resident education program, serves as reviewer and guest editor for journals and NIH grant review panel, and mentors graduate and medical students for developing research projects.

Dr. Yuxiang Zhou is appointed as an associate professor in the Department of Radiology at Mayo Clinic Arizona currently. In addition to his Ph.D. degree in physics, and two Master's degrees in Physics and Computer Science, he is board certified in Diagnostic Radiologic Physics by the American Board of Radiology. Dr. Zhou has conducted fascinating research over the last 20 years, particularly in the area of medical imaging. His primary academic interests are development, evaluation and application of MR imaging techniques for detection, diagnosis, monitoring and management of diseases. Technical innovations through MRI pulse sequence development and optimization is the central theme of his research. Dr. Zhou had developed, implemented, and validated novel MRI techniques for clinical diagnostics, tumor staging, disease treatment plans, and

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clinical research, such as DCE (dynamic contrast enhancement) and DSC (dynamic susceptibility change) MRI to assess changes in the microvascular environment; functional MRI and DTI (diffusion tensor imaging) for neurosurgeons to make presurgical planning in patients; quantitative MRI imaging for diagnostics and treatment response. Also, he provided the service to fuse PET/SPECT images with MRI images. Dr. Zhou displayed remarkable scientific talents and clinical technique skills in MRI/PET applications. His numerous publications on the topics of advanced & quantitative MRI imaging have been well received and have made a significant impact on clinical diagnostics and treatment. In addition to his time commitments at Mayo Clinic, Dr. Zhou is also active on national and international society Committees, which resulted from his national/international recognition for his accomplishment in medical imaging, such as RSNA Quantitative Imaging Biomarkers Alliance (QIBA), AAPM and others, focusing on improving the value and practicality of quantitative imaging biomarkers by reducing variability across devices, sites, patients, and time.

Dr. Xiangfei Chai, founder of Huiying Medical, is a leading expert for Medical Imaging (MI) and Artificial Intelligence (AI) in China with more than 10 years of interdisciplinary research and engineering experience. He studied and worked in three world-leading academic hospitals and has rich clinical experience with extensive knowledge in radiology/radiotherapy workflows. As an expert in imaging recognition, segmentation, analysis and deep learning in MI, he has published more than 10 papers in international journals, obtained 6 invention patents and 4 design patents both at home and abroad. In addition, he led the scientific research team to cooperate with many hospitals across the country, applied for scientific and technological research projects from the Ministry of science and technology of the people's Republic of China, and successfully approved more than 20 projects. Dr. Chai's company has become a nationwide high-tech enterprise with more than 100 employees and more than 50 R & D teams. During this period, the artificial intelligence products developed by his team include computer-aided diagnosis system for lung CT image, computer-aided diagnosis system for fractures and computer-aided diagnosis system for chest, which have been certified by conform European. In addition to his achievements in medical imaging, Dr. Chai has served as a standing member of telemedicine and information technology branch of China Medical Equipment Association and a member of medical artificial intelligence branch of Chinese society of biomedical engineering. In 2016, he was employed by Shandong Normal University as a distinguished professor and master tutor.