Call for Papers

Special issue on
Artificial Intelligence in Radiology: from Medical Diagnosis to Disease Monitoring

Journal of Medical Imaging and Health Informatics (JMIHI) invites authors to submit articles on the topics of “Artificial Intelligence in Radiology: from Medical Diagnosis to Disease Monitoring”.

Artificial intelligence (AI) is the representative frontier direction of the development of science and technology. Through the cross research with many disciplines and industries, it greatly affects the development of science and technology and the change of social production and life style. On the other hand, the biomedical imaging has become an integral part of disease diagnosis and treatment. X-ray, ultrasound imaging, magnetic resonance imaging, computed tomography, positron emission tomography and other medical imaging techniques have been widely used in clinical examination, diagnosis, treatment and decision-making. The intelligent medicine based on is an important direction of current medical development, and the AI in radiology is the most suitable entry point for AI and medicine combination.

The AI assisted the department of radiology in imaging acquisition, clinical diagnosis, disease monitoring, etc. In the aspect of imaging acquisition, AI is integrated into the imaging equipment, which can reduce the time of image acquisition and improve the data quality. In the aspect of computer-aided detection, AI can accelerate the work efficiency of medical image post-processing and disease detection. In the aspect of computer-aided diagnosis, AI is helpful to distinguish benign from malignant, measure risk factors, judge prognosis, etc. In
terms of condition monitoring, AI can intelligently monitor the natural change of disease condition and the response to treatment. Recently, AI has also played a positive role in the diagnosis and disease monitoring of novel coronavirus pneumonia.

This special issue focuses on the relevant efforts on AI in radiology from medical diagnosis to disease monitoring, to solve the problem from image acquisition to image analysis. The main goal of this special issue is to provide an overview of the current state-of-the-art advances in intelligent medicine, with a special emphasis given to the medical application of AI in radiology over the past decade.

Potential topics include, but are not limited to:

- Research on AI in imaging acquisition of X-ray, CT and MRI
- Research on AI for joint semantic segmentation, classification, target detection and localization of radiological images
- Deep learning and advanced computational biology methods are used to analyse acquired images and other medical data to aid in clinical medical diagnosis.
- Personalized diagnosis and personalized treatment based on invasive interventions of AI.
- Transfer learning and multitasking for radiological image analysis.
- Antagonistic training on radiological images and other medical data.

**READ THIS NOTE BEFORE SUBMISSION:**

Authors are encouraged to discuss with a guest editor to determine the suitability of their intended submissions. Before submission authors should carefully read over the journal’s Author Guidelines, which are located at http://www.aspbs.com/jmihi/inst-auth_jmihi.htm. Prospective authors should submit an electronic copy of their complete manuscript through the journal Manuscript Tracking System at http://mstracker.com/submit1.php?jc=jmihi, according to the following timetable:

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