Journal of Medical Imaging and Health Informatics

Call for Papers

Special issue (SI) on
New Technologies and Scientific Advances in Cardiovascular Research

Journal of Medical Imaging and Health Informatics (JMIHI) invites authors to submit articles on the applications of technology in heart diseases, biomedical imaging and the quantitative assessment of cardiovascular conditions, as well as clinical management of cardiac patients.

Breakthroughs in technologies have helped us to advance the understanding of the heart, from cell to organ level. At the same time, the computing hardware and software continue to grow exponentially over the last decade. This gives a great opportunity for researchers and clinicians to utilize the growing computing power to better understand cardiac disease and integrate different cardiac information into clinical diagnosis and patient management. In order to decode these data in the form of an in-depth understanding of the fundamental behaviors of the heart, to discover the mechanisms and progression of heart disease patterns, and to establish the foundation for clinical care and management of heart diseases, a large number of researchers and clinicians started to utilize the growing computing power to explore the unknown dimensions of cardiovascular system. These new understanding and finding not only can broaden the definition of cardiology, but also possibly might reshape the whole cardiology medicine.

This special issue focuses on the relevant efforts on computing in cardiology, covering the electrophysiological, modeling, signal processing, and clinical analysis of cardiology. The main goal of this special issue is to provide an overview of the current state-of-the-art advances in computing in cardiology, with a special emphasis given to the computing techniques for understanding cardiac system over the past decade. Potential topics include, but are not limited to:

- Models to simulate the behavior of the heart from cell to organ level.
- Analysis and processing of widely used cardiac data (such as CT, MRI, ultrasound, and echocardiography) and physiological recordings (such as electrocardiograms and blood pressure), as well as fusion techniques to integrate this wide spectrum of cardiac data to assist with clinical decision-making and therapy guidance.
• Combining clinical and engineering approach with computing methods to provide screening, diagnosis, therapy planning, and treatment follow-ups
• Computing techniques towards their clinical translations

**READ THIS NOTE BEFORE SUBMISSION:** Manuscript processing fees of US$ 100 per page of an article is required. Authors must mention in their cover letter for each SI manuscript that the particular manuscript is for the theme and name of Guest Editors of SI consideration so that the Guest Editors can be notified separately.

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](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](http://mstracker.com/submit1.php?jc=jmihi) according to the following timetable:

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