



Journal of Medical Imaging and Health Informatics



2017's SCI-IF 0.549

URL: www.aspbs.com/jmihi

ISSN: 2156-7018 (Print):

EISSN: 2156-7026 (Online)

A medium to disseminate novel experimental and theoretical research results in the field of biomedicine, biology, clinical, rehabilitation engineering, medical image processing, bio-computing, D2H2, and other health related areas.

Call for Papers

Special Issue on

Computer-aided Diagnosis of Coronary Artery Diseases

Guest Editors:

- (1) XIA Kaijian, MD, China University of Mining Technology, China (lb17060008@cumt.edu.com)
- (2) LI Yuexin, PhD, Hubei University, Wuhan, China (lyxchenglu@hubu.edu.cn).
- (3) SI Wen, PhD, University of South Florida, USA (wensi@mail.usf.edu)

Coronary artery diseases (CADs) have been the most important health problem in the world, especially in the developed counties where the CADs account for one sixth of the death toll. Coronary Computed Tomography Angiography (CCTA) and Magnetic Resonance Angiography (MRA), as the non-invasive diagnosis methods, are widely used in the clinical routine, which can visualize the cardiac chambers and coronary arteries. Segmentation of the coronary is especially valuable for assisting the diagnosis of CADs such as stenosis, aneurysms, and calcifications. Since manual extraction and annotation can be time-consuming and skill-demanding, automating this process is becoming increasingly desirable. We are targeting at inviting original research works in this field, covering new theories, models, algorithms, new tools & application, new benchmarks, theory and application in the segmentation and the disease analysis of the coronary. More specifically, we are also inviting researchers to contribute with survey papers, as well as comprehensive discussions and outlooks on potential directions.

This special issue will report the recent techniques of coronary extraction and analysis in clinical application. Papers from the following topics would be highly welcome, i.e., novel techniques and approaches for coronary extraction, detection and imaging of coronary artery calcification, deep learning with CADs analysis, how to use cloud computing to process large scale repositories, dealing

with large scale and heterogeneous data, new methods for surgical navigation technology. We also encourage authors to contribute their codes and release their real-world datasets, which would impact on this special issue more significantly.

The editors look forward to collecting a set of recent advances in the related topics, to provide a platform for researchers from both the academia and clinical medicine to exchange their innovative ideas, theories and applications.

Topics of interest include, but are not limited to:

- Coronary segmentation for CCTA or MRA
- CADs diagnosis based on technology of image analysis
- Deep learning for clinic application
- Technologies for coronary or heart imaging
- Machine learning for high-performance computing
- Surgical navigation technology for coronary artery bypass graft
- Location and analysis of the coronary calcification

Schedule:

Paper submission due: June 30, 2019

First notification: July. 31, 2019

Revision: Aug. 31, 2019

Final decision: September 30, 2019

Publication date: in 2019

Submission Guidelines

All manuscripts must be submitted via mstracker.com and authors are request to write in their cover letter that their submission is for this special issue and the name of the guest editor, so that the guest editor can be notified separately. Guidelines for preparation of the manuscripts are available at the journal website http://www.aspbs.com/jmihi/instauth_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> .

Manuscript-Processing Fees:

All new manuscripts submitted to this journal will be subjected to a Manuscript-Processing Fees. Research article publishing is not without occurring costs and the costs have been steadily increasing. To defray part of the publication cost, the journal will charge manuscript-processing fees, to be paid by the authors or their affiliated research institutions. The publication fee will be used to defray part of the occurring expenses associated with manuscript processing, editorial work flow, typesetting, proofreading, printing, online-hosting, and archiving. Authors or their affiliated research institutions are required to pay US\$1080 for their articles for a special issue article from all Countries. The authors will receive the

PDF version of their research papers in final form. When submitting a manuscript through online, it will be processed with an understanding that the corresponding authors fully agree to pay all manuscript-processing fees upon acceptance. The author who submits the manuscript to the journal is fully responsible for the manuscript-processing fees. Accepted peer reviewed manuscripts will not be processed and forwarded to production until all fees are paid in full to the publisher. Publisher will issue an invoice of manuscript-processing fees after a manuscript has been accepted for publication. Corresponding author will be asked to submit a signed Copyright Transfer Agreement (CTA) along with manuscript processing fees

CV for guest editors: (Lead)

Name: **XIA Kaijian, MD, PhD.**

Email: lb17060008@cumt.edu.com

Affiliation: China university of mining technology / Department of Information, Changshu NO.1 People's Hospital Jiangsu Changshu, China

Short CV:

Dr. XIA Kai-jian, male, born in 1983, now he is studying at China university of mining technology for Doctor degree. received a M.D (2009) in Computer Science and Technology from the Jiangnan University. From 2009 to 2010, he has been working at the Changshu Institute of Technology, as a lecturer in School of Computer Science and Engineering. And then since 2010, He has been working at the Changshu NO.1 People's Hospital. His research interests are in Biological image processing and Computational medicine, etc. He is a guest editor for <current bioinformatics>, <journal of communication>, <Cluster computing> and <Multimedia tools and applications>

Papers (To Appear/Appeared)

- 1.Kaijian XIA, Jiangqiang WANG, Yue WU. Robust Alzheimer Disease classification based on Feature Integration Fusion Model for Magnetic[J]Journal of Journal of medical imaging and health informatics, vol.7,1-6,2017 (SCI)
- 2.Kaijian XIA, Jiangqiang WANG. A novel medical image enhancement algorithm based on improvement correction strategy in wavelet transform domain [J] Cluster computing, 2017, DOI 10.1007/s10586-017-1264-y (SCI)
- 3.Kaijian XIA, Jiangqiang WANG, Jian CAI. A Novel Adaptive PET/CT Image Fusion Algorithm[J] Current bioinformatics (SCI)
- 4.Kaijian XIA, Hongsheng YIN Gongsheng RONG, Jiangqiang WANG, Yong JIN. X-ray image enhancement combined with adaptive low-pass filtering and fuzzy enhancement[J] Cluster computing, (SCI)
5. Kai-jian XIA, Jin-yi CHANG, Jin-cheng ZHOU. An Image Segmentation Based on Clustering of Spatial Patterns and Watershed Algorithm [J], International Journal of Computer and Network Security, Vol.2, No.7, July 2010, pp.15-17
6. Kaijian XIA, Jian CAI, Yue WU, Research on Improved Network Data Fault-Tolerant Transmission Optimization Algorithm [J], JCIT, Vol. 7, No. 19, pp. 114 ~ 120, 2012
- 7.Kaijian XIA, Yue WU, Ren xiaogang, Jin yong. Research in Clustering Algorithm for Diseases Analysis [J] Journal of Networks, 2013,8 (7): 123-129
- 8.Yao yufeng, Xia kaijian.Speech word recognizer based on the HMM algorithm[c] International Journal of Advancements in Computing Technology, vol. 3, no. 10, pp. 371–377, 2011

9. LE Deguang, JIN Yong, XIA Kaijian. Adaptive error control mechanism based on link layer frame importance valuation for wireless multimedia sensor networks Proceedings[C] 2nd IEEE International Conference on Advanced Computer Control, ICACC 2010, vol. 1, pp. 465–470, 2010
10. ZHONG Shan, XIA Kaijian. The representation and simulation for reasoning about action based on Colored Petri Net[C] ICIME 2010 - 2010 2nd IEEE International Conference on Information Management and Engineering, vol. 5, pp. 480–483, 2010
11. XIA kai-jian, CHANG Jin-yi, YAO Yu-feng, ZHONG Shan. An edge detection improved algorithm based on morphology and wavelet transform[C] 2010 The 2nd International Conference on Computer and Automation Engineering, ICCAE 2010, vol. 1, pp. 404–407, 2010
12. YAO Yufeng, CHANG Jinyi, XIA Kaijian. A case of parallel EEG data processing upon a Beowulf cluster[C] Proceedings of the International Conference on Parallel and Distributed Systems - ICPADS, pp. 799–803, 2009
13. Yong Jin, Kaijian Xia. Channel Aware Cooperative FEC/ARQ Mechanism based on Kalman Filter Prediction for Wireless Sensor Networks[J]. iJOE, 2014, 10(1): 22-28. (EI)
14. Yong Jin, Kaijian Xia, Xiaogang Ren etc. Adaptive Opportunistic Cooperative Control Mechanism Based on Combination Forecasting and Multilevel Sensing Technology of Sensors for Mobile Internet of Things [J]. Journal of Sensors. Volume 2014, Article ID 297368, 9 pages. (SCI&EI)
15. Wu Yue, Kaijian Xia. Application and Design on the Wireless network technology in hospital information construction[J] China Medical Equipment, 2013, 10(6): 41-43
16. XIA kaijian, WANG Shitong. Real-time simulation of soft-object dynamic deformation[J]. Computer Engineering and Design, 2009, 30(10): 2564-2566
17. XIA Kai-jian, ZHOU Jin-cheng, JING Wei-min. University Scientific Research Management Information System Design and Implementation based on WEB[J]. COMPUTER KNOWLEDGE AND TECHNOLOGY. 2010, 6(21): 5700-5703
18. XIA Kaijian, YAO Yufeng et al. Image fusion algorithm based on morphology wavelets transform[J]. Computer engineering, 2010, 36(19): 227-229
19. Xia Kaijian, Ren Xiaogang, Wu Yue. Energy optimization on heterogeneous processor platform in mobile device[J]. Application of electronic technique, 2014, 40(10): 138-141
20. XIA Kaijian, WANG Shitong. Simulation based on physically soft-object free-form deformation[J]. Computer engineering and applications, 2009, 45(29): 177-179
21. Xia kaijian. Skin deformation simulated with improved smooth skinning algorithm[J]. Chinese journal of computer engineering, 2009, 26(12): 177-179
22. wu yue, xia kaijian, cai jian, fan hongchun, ren xiaogang. Construction and Application of the Hospital Intelligent Mobile Nursing System[J]. China Medical Devices, 2014, 29(12): 58-59

Name: Yuexin Li, PhD. Professor.

Email: lyxchenglu@hubu.edu.cn

Affiliation: Hubei University, Wuhan, China.

Short CV:

From 2013 to now, He is the professor of School of Mathematics and Computer Science of Hubei University. In 1997, he was hired as the Hubei University computer science and system analysis and integrated professional master's graduate students. He received a Ph.D in Knowledge management of School of management, Wuhan University of Technology from 2004 to 2008. He received a master degree in Knowledge engineering of School of computer science, Jilin University from 1986 to 1989.

From 2012.08 So far, he is the Postdoctoral Fellow of University of Michigan at Ann Arbor electrical engineering and computer science American. His interest of Research includes database modeling, knowledge engineering and knowledge base, multi AGENT theory and technology and embedded technology.

Publications:

- [1]Li Y X, Ming Z, Shen C. The improvement of centralized intelligent control architecture and data collection algorithm[J]. Eurasip Journal on Wireless Communications & Networking, 2016, 2016(1):1-11.
- [2]Li Y, Zhang L. The Knowledge Sharing Models of Knowledge Management Implemented with Multi-Agents[C]// International Conference on E-Product E-Service and E-Entertainment. IEEE Xplore, 2010:1-4.
- [3] Ling Z, Li Y. The Implementation of Collaboration and Coordination of Multi-Agents in Knowledge Management[C]// International Conference on E-Product E-Service and E-Entertainment. IEEE, 2010:1-3.
- [4]Li Y, Xiao R. A Relational Model Based Semantic Network Knowledge Representation Technology and Its Application[C]// International Conference on Identification, Information and Knowledge in the Internet of Things. IEEE Computer Society, 2014:100-106.
- [5] Zhang L, Li Y X. The Supplementation and Completion of Multi-agent Knowledge Management to CAS Theory[C]// International Conference on Intelligence Science and Information Engineering. IEEE Computer Society, 2011:57-60.

Name: Dr. SI wen, PhD

E-Mail Address: wensi@mail.usf.edu

Affiliation: University of South Florida, USA

Short CV:

Wen Si, received his Ph.D degree from Shanghai University. Now, he works in Clinical Setting and Rehabilitation Department, Huashan Hospital, Fudan University, as an assistant professor. He also works in University of south Florida as the research assistant. He has published more than 20 scientific papers in Biomedical Engineering, Health Informatics and Internet of Things. His current research interests include wearable sensor, Human information collection, Medical Internet of things and Rehabilitation engineering.

- [1] Si Wen*, Hong-hao Gao, Xue-yi Li. A Proposed Scheme for City Family Health Information System. International Journal of Smart Home. Vol. 8, No. 3, May 2014 pp:49-60 EI
- [2] Wen Si, Hui-yuan Shi, Pan Liu. An Collaborative Data Gathering Mechanism based on Fuzzy Decision for Wireless Sensor Networks. International Journal of Distributed Sensor Networks. 2015, 11(3):952428:1-952428:10
eISSN: 15501477 ISSN: 15501477 2016 Impact Factor: 1.239
- [3] Si Wen, Yan Zhuang-zhi, Li YI, Liu Shu-peng. The Crouch Start Modeling and Simulation Based on AnyBody Technology. International Journal of Digital Content Technology and its Application . 2010. 5 (9). pp: 1-5.
- [4] Si Wen, Yan Zhuang-zhi, Liu Shu-peng. A Digital Spiked Shoes for Triaxial Force Measurement using Trigone Frustum and PVDF. Information Technology Journal.2011. 10(1). pp: 140-145.

- [5] Wen Si, Hong-hao Gao, Xue-yi Li. A Proposed Scheme for City Family Health Information System. *International Journal of Smart Home*. Vol. 8, No. 3, May 2014 pp:49-60
- [6] Si Wen, Mei Jia, Shi Hui-yuan, "Scenario-Based Errors Detecting for Mobile-Commerce Traces Using Timed Automata", *International Journal of Digital Content Technology and its Applications*, Vol. 7, No. 5, pp. 688 ~ 696, 2013