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Xiaoxia Yin · James Geller  
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# Health Information Science

5th International Conference, HIS 2016  
Shanghai, China, November 5–7, 2016  
Proceedings

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# Preface

The International Conference Series on Health Information Science (HIS) provides a forum for disseminating and exchanging multidisciplinary research results in computer science/information technology and health science and services. It covers all aspects of health information sciences and systems that support health information management and health service delivery.

The 5th International Conference on Health Information Science (HIS 2016) was held in Shanghai, China, during November 5–7, 2016. Founded in April 2012 as the International Conference on Health Information Science and Their Applications, the conference continues to grow to include an ever broader scope of activities. The main goal of these events is to provide international scientific forums for researchers to exchange new ideas in a number of fields that interact in-depth through discussions with their peers from around the world. The scope of the conference includes: (1) medical/health/biomedicine information resources, such as patient medical records, devices and equipment, software and tools to capture, store, retrieve, process, analyze, and optimize the use of information in the health domain, (2) data management, data mining, and knowledge discovery, all of which play a key role in decision-making, management of public health, examination of standards, privacy, and security issues, (3) computer visualization and artificial intelligence for computer-aided diagnosis, and (4) development of new architectures and applications for health information systems.

The conference solicited and gathered technical research submissions related to all aspects of the conference scope. All the submitted papers in the proceeding were peer reviewed by at least three international experts drawn from the Program Committee. After the rigorous peer-review process, a total of 13 full papers and nine short papers among 44 submissions were selected on the basis of originality, significance, and clarity and were accepted for publication in the proceedings. The authors were from seven countries, including Australia, China, France, The Netherlands, Thailand, the UK, and USA. Some authors were invited to submit extended versions of their papers to a special issue of the *Health Information Science and System* journal, published by BioMed Central (Springer) and the *World Wide Web* journal.

The high quality of the program — guaranteed by the presence of an unparalleled number of internationally recognized top experts — can be assessed when reading the contents of the proceeding. The conference was therefore a unique event, where attendees were able to appreciate the latest results in their field of expertise and to acquire additional knowledge in other fields. The program was structured to favor interactions among attendees coming from many different horizons, scientifically and geographically, from academia and from industry.

We would like to sincerely thank our keynote and invited speakers:

- Professor Ling Liu, Distributed Data Intensive Systems Lab, School of Computer Science, Georgia Institute of Technology, USA

- Professor Lei Liu, Institution of Biomedical Research, Fudan University; Deputy director of Biological Information Technology Research Center, Shanghai, China
- Professor Uwe Aickelin, Faculty of Science, University of Nottingham, UK
- Professor Ramamohanarao (Rao) Kotagiri, Department of Computing and Information Systems, The University of Melbourne, Australia
- Professor Fengfeng Zhou, College of Computer Science and Technology, Jilin University, China
- Associate Professor Hongbo Ni, School of Computer Science, Northwestern Polytechnical University, China

Our thanks also go to the host organization, Fudan University, China, and the support of the National Natural Science Foundation of China (No. 61332013) for funding. Finally, we acknowledge all those who contributed to the success of HIS 2016 but whose names are not listed here.

November 2016

Xiaoxia Yin  
James Geller  
Ye Li  
Rui Zhou  
Hua Wang  
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