

## BigCom 2016 Program

July 29 Friday	July 30 Saturday	July 31 Sunday	Venue
8:30-9:00 Opening	8:30-9:30 Keynote 3	8:30-9:30 Session 8	Xiangyue Hall (2nd floor)
9:00-10:00 Keynote 1		9:30-10:30 Session 9	
10:00-10:15 Break	9:30-9:45 Break	10:30-10:40 Break	
10:15-11:15 Keynote 2	9:45-9:55 BigCom 2017	10:40-11:40 Session 10	
11:15-11:30 Photo Shooting	9:55-11:35 Session 4	11:40-11:50 Closing	
11:30-1:00 Lunch	11:35-1:00 Lunch	11:50-12:30 Lunch	Hotel's restaurant (1st floor)
1:00-2:20 Session 1(Best Paper)	1:00-2:20 Session 5		Xiangyue Hall (2nd floor)
2:20-2:30 Break			
2:30-3:50 Session 2	2:30-3:50 Session 6		
3:50-4:00 Break			
4:00-5:40 Session 3	4:00-5:20 Session 7		
6:30-8:30 Banquet	5: 30-7: 00 Dinner buffet	6: 30-7: 30 Dinner buffet	Banquet: Ball Room (2nd floor) Dinner buffet: hotel's restaurant (1st floor)

### Day1: Friday, July 29

8:30-9:00      Open Remark  
                   (General Chairs: Ge Yu, Yu Wang  
                   Program Chairs: Yanyong Zhang, Zhu Han, Guoren Wang  
                   Steering Committee Chair: Xiangyang Li)

9:00-10:00      Keynote Session 1:  
 Session Chair: Ge Yu (Northeastern University)  
 Title: Accelerating Iterative Computations on Commodity Hardware and FPGAs

Speaker: Prof. Lixin Gao (University of Massachusetts, Amherst)

10:00-10:15 Break

10:15-11:15 Keynote Session 2:

Title: On Large Scale Internet of Things

Speaker: Prof. Yunhao Liu (Tsinghua University)

11:15-11:30 Photo Taking

11:30-13:00 Lunch

13:00-14:20 Session 1: Best Paper Candidates

- Similarity Search Algorithm over Data Supply Chain Based on Key Points, Peng Li, Hong Luo, Yan Sun and Xin-Ming Li
- Privacy-Preserving Strategyproof Auction Mechanisms for Resource Allocation in Wireless Communications, Yu-E Sun, He Huang, Xiang-Yang Li, Yang Du, Miaomiao Tian, Hongli Xu and Mingjun Xiao
- Cost Optimal Resource Provisioning for Live Video Forwarding across Video Data Centers, Yihong Gao, Huadong Ma, Wu Liu and Shui Yu
- Research and Application of Fast Multi-label SVM Classification Algorithm Using Approximate Extreme Points, Zhongwei Sun, Zhongwen Guo, Mingxing Jiang, Xi Wang and Chao Liu

14:20-14:30 Break

14:30-15:50 Session 2: Database and Big Data

- 5WTAG: Detecting the Topics of Chinese Microblogs Based on 5W Model, Zhibin Zhao, Zhenyu Mao, Jiahong Sun, Shi Feng and Yubin Bao
- HMVR-tree: A Multi-version R-tree Based on HBase for Concurrent Access, Shan Huang, Botao Wang, Shizhuo Deng, Kaili Zhao, Guoren Wang and Ge Yu
- Short- and Long-distance Big Data Transmission: Tendency, Challenge Issues and Enabling Technologies, Weigang Hou, Xu Zhang, Lei Guo, Yuyang Sun, Siqi Wang and Ye Zhang
- A Compact In-Memory Index for Managing Set Membership Queries on Streaming Data, Yong Wang, Xiaochun Yun, Shupeng Wang and Xi Wang

15:50-16:00 Break

16:00-17:40 Session 3: Smart Phone and Sensing Application

- Accurate Identification of Low-level Radiation Sources with Crowd-sensing Networks, Chaocan Xiang, Panlong Yang, Zhendong Yang and Xin Shen
- Rotate and Guide: Accurate and Lightweight Indoor Direction Finding Using Smartphones, Xiaopu Wang, Yan Xiong and Wenchao Huang
- LaP:Landmark-aided PDR on Smartphones for Indoor Mobile Positioning, Xi Wang, Mingxing Jiang, Zhongwen Guo, Naijun Hu, Zhongwei Sun and Jing Liu
- WhozDriving: Abnormal Driving Trajectory Detection by Studying Multi-Faceted Driving Behavior Features, Meng He, Bin Guo, Huihui Chen, Alvin Chin, Jilei Tian and Zhiwen Yu
- Trajectory Prediction in Campus Based on Markov Chains, Bonan Wang, Yihong Hu, Guochu Shou and Zhigang Guo

## Day 2: Saturday, July 30

8:30-9:30 Keynote Session 3:

Title: Data Usability: An Aspect of Big Data Research

Speaker: Prof. Jianzhong Li (Harbin Institute of Technology)

9:30-9:45 Break

9:45-9:55 Special Session: Introduction to BigCom 2017

9:55-11:35 Session 4: Sensor Networks and RFID

- Soil Moisture Content Detection Based on Sensor Networks, Huan Zhan, Li Chen, Wang Liantao and Wan Caiyan
- Missing Value Imputation for Wireless Sensory Soil Data: a Comparative Study, Jia Shao, Guodong Sun, Wei Meng and Hui Han
- Redundancy Elimination of Big Sensor Data using Bayesian Networks, Xie Sai, Chen Zhe, Fu Chong and Li Fangfang
- IoT sensing parameters adaptive matching algorithm, Zhijin Qiu, Naijun Hu, Zhongwen Guo, Qiu Like, Shuai Guo and Xi Wang
- Big Data in Ocean Observation: Opportunities and Challenges, Yingjian Liu, Meng Qiu, Chao Liu and Zhongwen Guo

11:35-13:00 Lunch

13:00-14:20 Session 5: Machine Learning and Algorithm

- MR-Similarity: Parallel Algorithm of Vessel Mobility Pattern Detection, Chao Liu, Yingjian Liu, Zhongwen Guo, Xi Wang and Shuai Guo
- Knowledge Graph Completion for Hyper-relational Data, Miao Zhou, Chunhong Zhang, Xiao Han, Yang Ji, Zheng Hu and Xiaofeng Qiu
- Approximate Subgraph Matching Query over Large Graph, Yu Zhao, Chunhong Zhang, Tingting Sun, Yang Ji, Zheng Hu and Xiaofeng Qiu
- A Novel High-dimensional Index Method based on the Mathematical Features, Yu Zhang, Jiayu Li and Ye Yuan

14:20-14:30 Break

14:30-15:50 Session 6: Architecture and Applications

- Target Detection and Tracking in Big Surveillance Video Data, Aiyun Yan, Jingjiao Li, Zhenni Li and Lan Yao
- SGraph: A Distributed Streaming System For Processing Big Graphs, Cheng Chen, Hejun Wu, Da Yan, James Cheng and Dyce Jing ZHAO
- Towards Semantic Web of Things: From Manual to Semi-automatic Semantic Annotation on Web of Things, Zhenyu Wu, Yuan Xu, Chunhong Zhang, Yunong Yang and Yang Ji
- Efficient Online Surveillance Video Processing based on Spark Framework, Hai Tao Zhang, Jin Yan and Yue Kou

15:50-16:00 Break

16:00-17:20 Session 7: Security and Privacy

- Infringement of Individual Privacy via Mining Differentially Private GWAS Statistics, Yue Wang, Jia Wen, Xintao Wu and Xinghua Shi
- Privacy Preserving in the Publication of Large-scale Trajectory Databases, Li Fengyun, Gao Fuxiang, Yao Lan and Pan Yu
- A Trust System for Detecting Selective Forwarding Attacks in VANETs, Suwan Wang and Yuan He
- Certificateless Key Insulated Encryption: Cryptographic Primitive for Achieving Key-escrow free and Key-exposure Resilience, Libo He, Chen Yuan, Hu Xiong and Zhiguang Qin

## Day 3: Sunday, July 31

### 8:30-9:30 Session 8: Routing and Resource Management

- Improved PC Based Resource Scheduling Algorithm for Virtual Machines in Cloud Computing, Baiyou Qiao, Muchuan Shen, Junhai Zhu, Yujie Zheng, Xiaolong Li, Bing Tong, Donghai Chen and Guoren Wang
- Resource Scheduling and Data Locality for Virtualized Hadoop on IaaS Cloud Platform, Dan Tao, Bingxu Wang, Zhaowen Lin and Tin-Yu Wu
- An asynchronous 2D-Torus Network-on-Chip using adaptive routing algorithm, Zhenni Li, Jingjiao Li, Aiyun Yan and Lan Yao

### 9:30-10:30 Session 9: Signal Processing and Pattern Recognition

- A novel J wave detection method based on massive ECG data and MapReduce, Dengao Li, Wei Ma and Jumin Zhao
- A Decision Level Fusion Algorithm for Time Series in Cyber Physical System, Jinshun Yang, Xu Zhang and Dongbin Wang
- An Improved Image Classification Method Considering Rotation Based on Convolutional Neural Network, Jingyi Qu

### 10:30-10:40 Break

### 10:40-11:40 Session 10: Social Networks and Recommendation

- Semantic Trajectories Based Social Relationships Discovery Using WiFi Monitors, Fengzi Wang, Xinning Zhu and Jiansong Miao
- Improving Location Prediction based on the Spatial-Temporal Trajectory, Ping Li, Xinning Zhu and Jiansong Miao
- Path Sampling Based Relevance Search in Heterogeneous Networks, Qiang Gu, Chunhong Zhang, Yang Ji, Tingting Sun, Zheng Hu and Xiaofeng Qiu

### 11:40-11:50 Closing Remark