

# The 8th IEEE International Conference on Big Knowledge Agenda

Wednesday , August 9, 2017			
7:00 am to 12:00 am	Registration Hotel Lobby		
9:00 am to 10:00 am	Keynote 1: Jian Pei, Simon Fraser University Tracking in Dynamic Networks Chair: Xindong Wu, Room: Function Room1, 多功能1厅 (Second Floor)		
10:00 am to 10:20 am	Coffee Break		
10:20 am to 12:00 pm	Session 1: Statistics Learning Chair: Jilian Zhang Room: Function Room1, 多功能1厅(Second Floor)	Session 2: Recommendation Systems Chair: Guoyin Wang Room: Lu Gu, 泸沽(Second Floor)	Session 3 : Knowledge Engineering Chair: Guozhu Dong Room: Qian Dao, 千岛(Second Floor)
12:00 pm to 14:00 pm	Lunch Break Wan Coffee, 皖咖啡(Ground Floor)		
14:00 pm to 15:40 pm	Session 4: Dynamic Systems Chair: Xuguang Lan Room: Function Room1, 多功能1厅	Workshop 1-1: Big Data Partitioning and Mining Chair: Peng Liu Room: Lu Gu, 泸沽	Workshop 3-1: Research and Application of Big Knowledge in Urban Governance Chair: Yu-Sheng Hu Room: Qian Dao, 千岛
15:40 pm to 16:10 pm	Coffee Break		
16:10 pm to 17:50 pm	Workshop 5-1: Analyzing and Predicting Interaction Behaviors Chair: Xiaofeng He Room: Function Room1, 多功能1厅	Workshop 1-2: Big Data Partitioning and Mining Chair: Shijie Hao Room: Lu Gu, 泸沽	Workshop 3-2: Research and Application of Big Knowledge in Urban Governance Chair: LiYuan Geng Room: Qian Dao, 千岛

18:00 pm to 20:00 pm	Banquet Shangri-La ballroom A, 香格里拉大宴会 A 厅(Second Floor)		
Thursday, August 10, 2017			
9:00 am to 10:00 am	Keynote 2: Ming Li, University of Waterloo Deep Learning in Bioinformatics Chair: Tamer Ozsu Room: Function Room1,多功能 1 厅		
10:00 am to 10:20 am	Coffee Break		
10:20 am to 12:00 pm	Workshop 5-2: Analyzing and Predicting Interaction Behaviors Chair: Ming Gao Room: T Function Room1, 多功能 1 厅	Workshop 2: Unsupervised Learning Chair: Bifan Wei Room: Lu Gu, 泸沽	Workshop 4: Sparse, Uncertain and Incomplete Data Modeling and Online Learning Chair: Hong Yu Room: Qian Dao, 千岛
12:00 pm to 14:00 pm	Lunch Break (Wan Coffee)		
14:00 pm to 15:30 pm	Panel 1: Big Data vs. Big Knowledge Chair: Tamer Ozsu Room: Qian Dao, 千岛	Panel 2: Knowledge Engineering with Big Data Chair: Xindong Wu Room: Function Room1,多功能 1 厅	

## **Session 1: Statistics Learning. Wednesday, August 9, 2017, 10:20 am to 12:00 pm**

- Multi-label Classification Using Stacked Hierarchical Dirichlet Processes with Reduced Sampling Complexity  
**Sophie Burkhardt and Stefan Kramer**
- Analyzing Structure of Terrorist Networks by Using Graph Metrics  
**Muhammet Serkan Cinar, Burkay Genc, Hayri Sever, and Vijay V Raghavan**
- A Global Flight Networks Analysis Approach Using Markov Clustering and PageRank  
**Kecheng Xu, Teng Long, Shaojie Qiao, Yating Zheng, and Nan Han**
- Multi-layer Big Knowledge Visualization Scheme for Comprehending Neoplasm Ontology Content  
**Ling Zheng, Christopher Ochs, James Geller, Hao Liu, Yehoshua Perl, and Sherri De Coronado**
- A New Online Feature Selection Method Using Neighborhood Rough Set  
**Peng Zhou, Xuegang Hu, and Peipei Li**

## **Session 2: Recommendation Systems. Wednesday, August 9, 10:20am to 12:00pm**

- Privacy-Preserving Pattern Mining on Online Density Estimates  
**Michael Geilke and Stefan Kramer**
- Exploiting Nonlinear Relationships for Top-N Recommender Systems  
**Zhao Kang, Chong Peng, Ming Yang, and Qiang Cheng**
- Iteratively Multiple Projections Optimization for Product Quantization in Nearest Neighbor Search  
**Jin Li, Xuguang Lan, and Nanning Zheng**
- Factored Proximity Models for Top-N Recommendations  
**Athanasios N. Nikolakopoulos, Vassilis Kalantzis, Efstratios Gallopoulos, and John D. Garofalakis**
- A Novel Three-Way Clustering Algorithm for Mixed-Type Data  
**Hong Yu, Zhihua Chang, and Bing Zhou**

### **Session 3: Knowledge Engineering. Wednesday, August 9, 10:20 am to 12:00 pm**

- Subpopulation-Wise Conditional Correlation Modeling and Analysis  
**Guozhu Dong and Sanjeev Bhatta**
- Self-Learning and Embedding Based Entity Alignment  
**Saiping Guan, Xiaolong Jin, Yantao Jia, Yuanzhuo Wang, Huawei Shen, and Xueqi Cheng**
- Towards Question Improvement on Knowledge Sharing Platforms: A Stack Overflow Case Study  
**Rishabh Gupta and P. Krishna Reddy**
- TDN: Twice-Least-Square Double-Parallel Neural Networks  
**Guo-Qiang Li and Keith C.C. Chan**
- Keyphrase Extraction Using Sequential Pattern Mining and Entropy  
**Qingren Wang, Victor S. Sheng, and Chenyi Hu**

### **Session 4: Dynamic Systems. Wednesday, August 9, 2017, 14:00 pm to 15:40 pm**

- Learning Question Similarity with Recurrent Neural Networks  
**Borui Ye, Guangyu Feng, Anqi Cui, and Ming Li**
- Crime Hot Spot Forecasting: A Recurrent Model with Spatial and Temporal Information  
**Yong Zhuang, Matthew Almeida, Melissa Morabito, and Wei Ding**
- Granger Causality for Multivariate Time Series Classification  
**Dandan Yang, Huanhuan Chen, Yinlong Song, and Zhichen Gong**
- Revisit Word Embeddings with Semantic Lexicons for Modeling Lexical Contrast  
**Jiawei Liu, Zhenyu Liu, and Huanhuan Chen**

### **Workshop 1-1 Wednesday, August 9, 2017, 14:00 pm to 15:40 pm**

- A Novel Approach Based on Neural Networks and Support Vector Machine for Stock  
**Fan Yajing and Gan Yujian**
- Unsupervised Spectral Feature Selection with Local Structure Learning  
**Shichao Zhang, Yue Fang, Cong Lei, Yangding Li, Rongyao Hu, and Yonggang Li**
- Unsupervised Feature Selection via Local Structure Learning and Self-Representation  
**Shichao Zhang, Cong Lei, Yue Fang, Yangding Li, Rongyao Hu, and Xiaoyi Hu**
- Randomized Perturbation for Privacy-Preserving Social Network Data Publishing  
**Peng Liu, Li-e Wang, and Xianxian Li**
- Robust Features Selection via Structure Learning and Multiple Subspace Learning  
**Yonghua Zhu, Xuejun Zhang, Rongyao Hu, and Guoqiu Wen**

### **Workshop 1-2: Wednesday, August 9, 2017, 16:10 pm to 17:50 pm**

- Low-Light Image Enhancement by Refining Illumination Map with Self-Guided Filtering  
**Zhuang Feng and Shijie Hao**
- A Potential-Based Clustering Method by Fast Search and Find of Cluster Centers  
**Xin Liu, Yongjian Liu, and Qing Xie**
- TLRec: Transfer Learning for Cross-Domain Recommendation  
**Leihui Chen, Jianbing Zheng, Ming Gao, Aoying Zhou, Wei Zeng and Hui Chen**
- Causal Structure Learning Algorithm Based on Streaming Features  
**Xiaoxue Guo and Jing Yang**

### **Workshop 2: Thursday, August 10, 2017, 10:20 am to 12:00 pm**

- A Method Study of Online Publication Time Extraction for Chinese Web News  
**Liangliang Wang and Gongqing Wu**
- Synonymous Entity Recognition Based on Feature Fusion  
**Desheng Cai, Jingjing He, Gongqing Wu, and Xuegang Hu**

### **Workshop 3-1 Wednesday, August 9, 2017, 14:00 pm to 15:40 pm**

- Research on the Emergency Events Monitoring of Minsheng Hotline Based on Text  
**Xue Bin and Tao Haijun**
- Subject Extraction Method of Urban Complaint Data  
**Zhian Dong and Xueqiang Lv**
- Emergency Events Classification Based on Minsheng Hotline Unbalanced Short-Text  
**Li-Yuan Geng, Wei Jin, and Han-Bing Qu**
- Risk Assessment of Long Distance Oil and Gas Pipeline Based on Grey Clustering  
**Yusheng Hu, Kehui Liu, Dong Xu, Zhengang Zhai, and Haiyun Liu**
- Big Data in Urban Construction Archives and Urban Management: Detected Underground Pipes Alignment with Urban Construction Records  
**BingZhang Chi, Hui Meng, KuiXiu Zhai, Guangyin Zhai, and Yan Liu**

### **Workshop 3-2: Wednesday, August 9, 2017, 16:10 pm to 17:50 pm**

- Research on Innovation of Management Concept of Urban Underground Pipelines Based on Big-Knowledge-Thinking in the Big Data Era  
**Hui Wan and Decheng Kong**
- Mining Course Trajectories of Successful and Failure Students: A Case Study  
**Jin Soung Yoo, Yei-Sol Woo, and Sang Jun Park**
- Mining Place Design Knowledge from Multi-source Data in an Informed Design Platform  
**Linlin You, Bige Tuncer, and Hexu Xing**
- An Anomaly Detection Method for Medicare Fraud Detection  
**WeiJia Zhang and Xiaofeng He**

#### **Workshop 4: Thursday, August 10, 2017, 10:20 am to 12:00 pm**

- Modeling Topic Evolution in Social Media Short Texts  
**Wei Li, Xiaohui Cui, Kevin Michael Amaral, Rajani Sadasivam, and Ping Chen**
- Incorporating Entity Correlation Knowledge into Topic Modeling  
**Qilin Wang, Dandan Song, and Xiuquan Li**
- EEG-Based Person Recognition Analysis and Criticism  
**Meriem Romaissa Boubakeur, Guoyin Wang, Chenglin Zhang, and Ke Liu**
- Smoking Cessation Recruitment Analysis: A Case Study  
**Wei Li, Xiaohui Cui, Kevin Michael Amaral, Rajani Sadasivam, and Ping Chen**
- Online Streaming Feature Selection Based on Conditional Information Entropy  
**Huaming Wang, Guoyin Wang, Xianhua Zeng, and Siyuan Peng**

#### **Workshop 5-1: Wednesday, August 9, 2017, 16:10 pm to 17:50 pm**

- BMNR: Design and Implementation a Benchmark for Metrics of Network Robustness  
**Jianbing Zheng, Yanbin Li, Yanji Hou, Ming gao, and Aoying Zhou**
- A Hybrid Abnormal Advertising Traffic Detection Method  
**Kun Wang, Guohai Xu, and Xiaofeng He**
- Video Captioning with Semantic Information from the Knowledge Base  
**Dan Wang and Dandan Song**
- BiUCB: A Contextual Bandit Algorithm for Cold-Start and Diversified Recommendation  
**Lu Wang, Chengyu Wang, Keqiang Wang, and Xiaofeng He**

#### **Workshop 5-2: Thursday, August 10, 2017, 10:20 am to 12:00 pm**

- A Transfer Learning Based Boosting Model for Emotion Analysis  
**Ruolan Yong, Chengyu Wang, and Xiaofeng He**
- Discovering Knowledge by Behavioral Analytics for Elderly Care  
**Bruce X.B. Yu and Keith C.C. Chan**
- Image Retrieval Based on Hierarchical Locally Constrained Diffusion Process  
**Xianhua Zeng, Meng Hu, and Suwen Zhu**