

The 8th IEEE International Conference on Big Knowledge Agenda

Wednesday , August 9, 2017			
9:00 am to 10:00 am	Keynote 1: Jian Pei, Simon Fraser University Tracking in Dynamic Networks Chair: Xindong Wu		
10:00 am to 10:20 am	Coffee Break		
10:20 am to 12:00 pm	Session 1: Statistics Learning Chair: Shichao Zhang	Session 2: Recommendation Systems Chair: Guoyin Wang	Session 3 : Knowledge Engineering Chair: Guozhu Dong
12:00 pm to 14:00 pm	Lunch Break		
14:00 pm to 15:40 pm	Session 4: Dynamic Systems Chair: Jun Liu	Workshop 1-1: Big Data Partitioning and Mining Chair: Peng Liu	Workshop 3-1: Research and Application of Big Knowledge in Urban Governance Chair: Yu-Sheng Hu
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	Workshop 1-2: Big Data Partitioning and Mining Chair: Xuejun Zhang	Workshop 3-2: Research and Application of Big Knowledge in Urban Governance Chair: LiYuan Geng
18:00 pm to 20:00 pm	Banquet		

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		
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: Min Gao	Workshop 2: Unsupervised Learning Chair: Bifan Wei	Workshop 4: Sparse, Uncertain and Incomplete Data Modeling and Online Learning Chair: Xianhua Zeng
12:00 pm to 14:00 pm	Lunch Break		
14:00 pm to 15:30 pm	Panel 1: Big Data vs. Big Knowledge Chair: Tamer Ozsu	Panel 2: Knowledge Engineering with Big Data Chair: Xindong Wu	

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
Yuhao Zhang and Wenji Mao
- 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