

# Dr. Hui Xiong

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## RESEARCH INTERESTS

Data Mining and Knowledge Discovery, Big Data Analytics, Mobile Computing, Business Intelligence, and Information Assurance.

## EDUCATION

**Ph.D.**, Computer Science, University of Minnesota - Twin Cities (UMN), 2005.

**Ph.D. Minor**, Statistics, University of Minnesota - Twin Cities (UMN)

**M.S.**, Computer Science, National University of Singapore (NUS), 2000

**B.E.**, Automation, University of Science and Technology of China (USTC), 1995

## HONORS & AWARDS

- RBS Dean's Research Professor, 2016
- ACM Distinguished Scientist, 2014.
- Dean's Award for Meritorious Research, Rutgers Business School, 2010, 2011, 2013, 2015.
- 2011 IEEE ICDM Best Research Paper Award for the paper "Personalized Travel Package Recommendation", published at IEEE International Conference on Data Mining (one out of 786 submissions), 2011.
- Second Prize of Unsupervised and Transfer Learning Challenge, ICML and IJCNN, 2011.
- Rutgers University Board of Trustees Research Fellowship for Scholarly Excellence, 2009.
- Two-year early promotion to Associate Professor (with tenure), Rutgers University, 2009.
- IBM ESA Innovation Award, 2008.
- 2008 KDD Best Student Paper Award Runner-Up, for the paper "Volatile Correlation Computation: A Checkpoint View" published at ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD-2008).
- Junior Faculty Teaching Excellence Award (One Per School), Rutgers Business School, 2007.

## PROFESSIONAL EXPERIENCE

### **RBS Dean's Research Professor**

Rutgers Business School - Newark and New Brunswick  
Rutgers, the State University of New Jersey, **July 2016 - Present.**

### **Professor**, Management Science and Information Systems Department

Rutgers Business School - Newark and New Brunswick  
Rutgers, the State University of New Jersey, **July 2014 - Present.**

### **Vice Chair**, Management Science and Information Systems Department

Rutgers Business School - Newark and New Brunswick  
Rutgers, the State University of New Jersey, **July 2011 - July 2014, January 2015 - Present**

### **Associate Professor**, Management Science and Information Systems Department

Rutgers Business School - Newark and New Brunswick  
Rutgers, the State University of New Jersey, **July 2009 - June 2014.**

### **Visiting Scholar**, STERN School of Business

New York University, **September 2009 - December 2009.**

**Visiting Scholar**, Microsoft Research Asia, **Spring 2012**.

**Assistant Professor**, Management Science and Information Systems Department  
Rutgers Business School - Newark and New Brunswick  
Rutgers, the State University of New Jersey, **August 2005 - June 2009**.

**Director**, Rutgers Center for Information Assurance  
Rutgers, the State University of New Jersey, **October 2011 - Present**.

**Member of DIMACS**  
Rutgers, the State University of New Jersey, **October 2009 - Present**.

**Faculty Associate, Wireless Information Network Laboratory (WINLAB)**, Piscataway, NJ  
Rutgers, the State University of New Jersey, **November 2007 - Present**.

**Faculty Associate**, Center for Information Management, Integration and Connectivity (CIMIC)  
Rutgers, the State University of New Jersey, **August 2005 - present**.

## TEACHING

### PhD Students

- Zijun Yao, Constantine Vitt, Jingyuan Yang, Farid Razzak, Hao Zhong, Junming Liu, Yanchi Liu, Mingfei Teng
- Meng Qu (PhD in IT, 2017, **Assistant Professor of Practice, Rutgers University**)
- Bin Liu (PhD in IT, 2016, **IBM Research**)
- Yanjie Fu (PhD in IT, 2016, **Assistant Professor, Missouri University of Science and Technology**)
- Chuanren Liu (PhD in IT, 2015, **Assistant Professor, Drexel University**)
- Zhongmou Li (PhD in IT, 2015, **Data Scientist, Facebook**)
- Yong Ge (PhD in IT, 2013, **Assistant Professor, University of Arizona - Tucson**), the recipient of the Academic Excellence Award at Rutgers Business School
- Keli Xiao (PhD in Finance, 2013, co-supervised with Professor Yangru Wu, **Assistant Professor, Stony Brook University**)
- Wenjun Zhou (PhD in IT, 2011, **Assistant Professor, University of Tennessee - Knoxville**), the recipient of ACM SIGKDD Doctoral Dissertation Award Honorable Mention

### Master Students

- Suhas Chauhan (2016), Ishana Raina (2016), Kaidi Yao (2016), Mayank Bhargav (2016), Zixuan Yuan (2016), Tao Ruan (2016), Jingci Ming (2016), Luo Xiao (2016), Pratik Vazirani (2016), Qinyi Zhang (2016), Hang Yin (2016), Yiying Zhou (2015), Sreenidhi Reddy Kallu (2015), Xiaotian Yue (2015), Junwei Zhong (2015), Jiadi Du (2015), Tian Liu (2015) Jie Hu (2015), Mingfei Teng (2015), NAMRATHA NANDYAL (2015), Gayathri Sridharan (2015), Varun Vajpayee (2015), Constantine Vitt (2015), Xiang Cui (2015) Tao Ning (2014), Anqi Fu (2014), Yifei Jiao (2014), Kruti Shah (2014), Jingjing Li (2014), Yarui Sun (2014), Chia-wei Li (2014), Chengzhang Wu (2014), Wanjun Huang (2014), Bingxuan Feng (2014), Chima Okoro (2014), Yihang Fu (2014), Siqi Wu (2014), Mengyin Yang (2013), Can Chen (2013), Huikai Ma (2013), Srideepthi Narla (2013), Bingjie Lu (2013), Liwen Xing (2012), Jing Li (2012), Jingyuan Yang (2012), Lakshmi Sahithi Dantu (2012), Uma Maheswari (2012), Rachana Ravi (2012), Sadaf Hussain (2012), Jyotsna Sahirdayan (2011), Ishita Chokshi (2010) Elinor Volansky (2009), Mengjia Wang (2009),

### Undergraduate Students

- Angela Chen (US Citizen, supported by an NSF REU grant)

- Islam Taman (US Citizen, supported by an NSF REU grant)

#### Courses Taught

- Graduate Course: "Data Mining (26:198:685)"  
Fall 2006, Spring 2009, Spring 2011, Fall 2011, Fall 2012, Fall 2013, Fall 2014, Spring 2015, Fall 2015, Spring 2016, Fall 2016, Spring 2017, Fall 2017
- Full-time MBA Course: "Information Technology for Managers (22:198:504)"  
Spring 2008, Spring 2010, Spring 2011
- Part-time MBA Course: "Computers & Information Systems (22:198:604)"  
Spring 2007; Fall 2008
- Undergraduate Course: "Computer Network Applications (29:623:375)".  
Fall 2005, Fall 2007, Fall 2008; Spring 2006, Spring 2007, Spring 2010
- Undergraduate Course: "Data Mining for Business Intelligence".  
Fall 2010
- Undergraduate Course: "Management Information Systems (29:623:220)"  
Fall 2005, Spring 2006, Fall 2007

#### SELECTED PUBLICATIONS<sup>1</sup>

##### Books

1. Shashi Shekhar, Hui Xiong, and Xun Zhou (Editor-in-Chiefs), Encyclopedia of GIS, ISBN-13: 978-3319178844, ISBN-10: 3319178849, Springer; 2 edition, 2017.
2. My T. Thai, Weili Wu and Hui Xiong, Big Data in Complex and Social Networks (Chapman & Hall/CRC Big Data Series) . ISBN-10: 1498726844, ISBN-13: 978-1498726849, November, 2016.
3. Shashi Shekhar and Hui Xiong (Editor-in-Chiefs), Encyclopedia of GIS, ISBN-10: 0387359753, ISBN-13: 978-0387359755, Springer; 1 edition, January, 2008. (**Selected by CHOICE Reviews as CHOICE Outstanding Academic Title of the Year 2008**, Springer).
4. Hui Xiong, Hyperclique pattern discovery: Algorithms and applications, ISBN: 0-5422-6663-6, ProQuest Information and Learning, March, 2006.
5. Weili Wu, Hui Xiong, Shashi Shekhar (Eds.). Clustering and Information Retrieval, ISBN: 1-4020-7682-7, Kluwer Academic Publishers, 2003.

##### Journal Papers

1. Chuanren Liu, Hui Xiong, Spiros Papadimitriou, Yong Ge, Keli Xiao. A Proactive Workflow Model for Healthcare Operation and Management, IEEE Transactions on Knowledge and Data Engineering (TKDE), 29(3):586-598, 2017.
2. Guannan Liu, Yanjie Fu, Guoqing Chen, Hui Xiong, Can Chen: Modeling Buying Motives for Personalized Product Bundle Recommendation, ACM Transactions on Knowledge Discovery from Data (TKDD), 11(3), 28:1-28:26, 2017.
3. Qi Liu, Biao Xiang, Nicholas Jing Yuan, Enhong Chen, Hui Xiong, Yi Zheng, Yu Yang: An Influence Propagation View of PageRank, ACM Transactions on Knowledge Discovery from Data (TKDD), 11(3): 30:1-30:30, 2017.
4. Yonghui Xu, Sinno Jialin Pan, Hui Xiong, Qingyao Wu, Ronghua Luo, Huaqing Min, Hengjie Song: A Unified Framework for Metric Transfer Learning. IEEE Trans. Knowl. Data Eng. 29(6): 1158-1171 (2017).
5. Jiangning He, Hongyan Liu, Hui Xiong. SocoTraveler: Travel-package recommendations leveraging social influence of different relationship types. Information & Management 53(8): 934-950, 2016.

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<sup>1</sup>A more up-to-date list of publications is available at my homepage <http://datamining.rutgers.edu/>

6. Yanjie Fu, Guannan Liu, Spiros Papadimitriou, Hui Xiong, Xiaolin Li, Guoqing Chen. Fused latent models for assessing product return propensity in online commerce. *Decision Support Systems*, Vol 91, pp. 77-88, 2016.
7. Hao Zhong, Chuanren Liu, Junwei Zhong, Hui Xiong. Which Startup to Invest: A Personalized Portfolio Strategy, *Annals of Operations Research*, to Appear, 2016.
8. Yanjie Fu, Hui Xiong, Xinjiang Lu, Jin Yang, Can Chen. Service Usage Classification with Encrypted Internet Traffic in Mobile Messaging Apps. *IEEE Transactions on Mobile Computing (TMC)*, 15(11):2851-2864, 2016.
9. Bin Liu, Yao Wu, Neil Zhenqiang Gong, Junjie Wu, Hui Xiong, Martin Ester. Structural Analysis of User Choices for Mobile App Recommendation. *TKDD* 11(2): 17:1-17:23, 2016.
10. Yanjie Fu, Hui Xiong, Yong Ge, Yu Zheng, Zijun Yao, Zhi-Hua Zhou. Modeling of Geographical Dependencies for Real Estate Ranking. *ACM Transactions on Knowledge Discovery from Data (TKDD)*, 11(1):11:1-11:27, 2016.
11. Yanhong Guo, Wenjun Zhou, Chunyu Luo, Chuanren Liu, Hui Xiong. Instance-Based Credit Risk Assessment for Investment Decisions in P2P Lending. *European Journal of Operational Research (EJOR)* 249(2): 417-426, 2016.
12. Chuanren Liu, Kai Zhang, Hui Xiong, Guofei Jiang, Qiang Yang. Temporal Skeletonization on Sequential Data: Patterns, Categorization, and Visualization. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 28(1): 211-223, 2016.
13. Hengshu Zhu, Hui Xiong, Yong Ge, Enhong Chen. Discovery of Ranking Fraud for Mobile Apps. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 27(1): 74-87, 2015.
14. Junjie Wu, Hongfu Liu, Hui Xiong, Jie Cao, Jian Chen. K-Means-Based Consensus Clustering: A Unified View. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 27(1): 155-169, 2015.
15. Bin Liu, Hui Xiong, Spiros Papadimitriou, Yanjie Fu, and Zijun Yao. A General Geographical Probabilistic Factor Model for Point of Interest Recommendation, *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 27(5): 1167-1179, 2015.
16. Nicholas Jing Yuan, Yu Zheng, Xing Xie, Yingzi Wang, Kai Zheng, Hui Xiong. Discovering Urban Functional Zones Using Latent Activity Trajectories. *IEEE Transaction Knowledge Data Engineering (TKDE)*, 27(3): 712-725, 2015.
17. Xiuyuan Zheng, Jie Yang, Yingying Chen, Hui Xiong. An Adaptive Framework Coping with Dynamic Target Speed for Device-Free Passive Localization. *IEEE Transactions on Mobile Computing (TMC)*, 14(6): 1138-1150, 2015.
18. Yong Ge, Hui Xiong, Alexander Tuzhilin and Qi Liu, Cost-aware Collaborative Filtering for Travel Tour Recommendations, *ACM Transactions on Information Systems (TOIS)*, 32(1): 4:1-4:31, 2014.
19. Hengshu Zhu, Chuanren Liu, Yong Ge, Hui Xiong, Enhong Chen. Popularity Modeling for Mobile Apps: A Sequential Approach. *IEEE Transactions on Cybernetics (TC)*, 45(7): 1303-1314, 2015.
20. Liyang Tang, Zhiwei Ni, Hui Xiong, Hengshu Zhu. Locating targets through mention in Twitter. *World Wide Web* 18(4): 1019-1049, 2015.
21. Yong Ge, Guofei Jiang, Min Ding, and Hui Xiong. Ranking Metric Anomaly in Invariant Networks. *ACM Transactions on Knowledge Discovery from Data (TKDD)*, Volume 8 Issue 2, No. 8, 2014.
22. Baoxing Huai, Enhong Chen, Hengshu Zhu, Hui Xiong, Tengfei Bao, Qi Liu, Jilei Tian. Toward Personalized Context Recognition for Mobile Users: A Semisupervised Bayesian HMM Approach. *(TKDD)* 9(2): 10:1-10:29, 2014.
23. Qi Liu, Enhong Chen, Hui Xiong, Yong Ge, Zhongmou Li, Xiang Wu. A Cocktail Approach for Travel Package Recommendation. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 26(2):278-293, 2014.

24. Fuzhen Zhuang, Ping Luo, Changying Du, Qing He, Zhongzhi Shi, Hui Xiong. Triplex Transfer Learning: Exploiting Both Shared and Distinct Concepts for Text Classification. *IEEE Transactions on Cybernetics (TC)*, 44(7): 1191-1203, 2014.
25. Chang Tan, Qi Liu, Enhong Chen, Hui Xiong, Xiang Wu. Object-Oriented Travel Package Recommendation. *ACM TIST* 5(3): 43:1-43:26, 2014.
26. Hengshu Zhu, Huanhuan Cao, Enhong Chen, Hui Xiong, Jilei Tian. Mobile App Classification with Enriched Contextual Information. *IEEE Transactions on Mobile Computing (TMC)*, 13(7): 1550-1563, 2014.
27. Hengshu Zhu, Enhong Chen, Hui Xiong, Kuifei Yu, Huanhuan Cao, Jilei Tian. Mining Mobile User Preferences for Personalized Context-Aware Recommendation, *ACM Transaction on Intelligent Systems and Technology (TIST)*, 5(4): 58:1-58:27, 2014.
28. Tiejun Qian, Qing Li, Bing Liu, Hui Xiong, Jaideep Srivastava, Phillip C.-Y. Sheu. Topic formation and development: a core-group evolving process. *World Wide Web* 17(6): 1343-1373 (2014).
29. Jie Cao, Zhiang Wu, Junjie Wu, Hui Xiong. SAIL: Summation-bAsed Incremental Learning for Information-Theoretic Text Clustering, *IEEE Transactions on Cybernetics (TC)*, 43(2), 570-584, 2013.
30. Yanchi Liu, Zhongmou Li, Hui Xiong, Xuedong Gao, Junjie Wu, Sen Wu. Understanding and Enhancement of Internal Clustering Validation Measures, *IEEE Transactions on Cybernetics (TC)*, Vol. 43, No. 3, pp. 982-994, 2013.
31. Byron Gao, Martin Ester, Hui Xiong, Jin-Yi Cai, Oliver Schulte. The Minimum Consistent Subset Cover Problem: A Minimization View of Data Mining, *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, Vol. 25, No. 3, pp.690-703, 2013.
32. Zhongmou Li, Hui Xiong, Yanchi Liu. Mining Blackhole and Volcano Patterns in Directed Graphs: A General Approach. *Data Mining and Knowledge Discovery Journal*, pp.577-602, 2012.
33. Qi Liu, Enhong Chen, Hui Xiong, Chris H. Q. Ding, Jian Chen. Enhancing Collaborative Filtering by User Interest Expansion via Personalized Ranking. *IEEE Trans. Systems, Man, and Cybernetics, Part B* 42(1): 218-233, 2012.
34. Hongyan Liu, Jun He, Yingqin Gu, Hui Xiong, Xiaoyong Du, Detecting and Tracking Topics and Events from Web Search Logs, *ACM Transactions on Information Systems (TOIS)*, 30(4), 2012.
35. Aabhas V. Paliwal, Basit Shafiq, Jaideep Vaidya, Hui Xiong, Nabil R. Adam. Semantics-Based Automated Service Discovery. *IEEE Trans. Services Computing* 5(2): 260-275, 2012.
36. Junjie Wu, Hui Xiong, Chen Liu, and Jian Chen. A Generalization of Distance Functions for Fuzzy c-Means Clustering. *IEEE Transactions on Fuzzy Systems (TFS)*, 20(3): 557 - 571, 2012.
37. Stephen France, Douglas Carroll, Hui Xiong. Distance Metrics for High Dimensional Nearest Neighborhood Recovery: Compression and Normalization. *Information Sciences*, 184(1): 92 - 110, 2012.
38. Junjie Wu, Shiwei Zhu, Hui Xiong, Jian Chen, Jianming Zhu, Adapting the Right Measures for Pattern Discovery: A Unified View. *IEEE Transactions on Systems, Man, and Cybernetics, Part B (TSMCB)*, 42(4): 1203-1214, 2012.
39. Tengfei Bao, Huanhuan Cao, Enhong Chen, Jilei Tian, Hui Xiong. An unsupervised approach to modeling personalized contexts of mobile users. *Knowledge and Information System (KAIS)*, 31(2): 345-370, 2012.
40. Junjie Wu, Hui Xiong, Chen Liu, Jian Chen. A Generalization of Distance Functions for Fuzzy c-Means Clustering With Centroids of Arithmetic Means. *IEEE Trans. Fuzzy Systems* 20(3): 557-571, 2012.
41. Byron J. Gao, Obi L. Griffith, Martin Ester, Hui Xiong, Qiang Zhao. Steven J. M. Jones. On the Deep Order-Preserving Submatrix Problem: A Best Effort Approach. *IEEE Trans. Knowl. Data Eng.* 24(2): 309-325, 2012.

42. Hongyan Liu, Jun He, Yingqin Gu, Hui Xiong, Xiaoyong Du. Detecting and Tracking Topics and Events from Web Search Logs. *ACM Transactions on Information Systems (TOIS)*, 30(4): 21:1-21:29, 2012.
43. Byron J. Gao, Obi L. Griffith, Martin Ester, Hui Xiong, Qiang Zhao, Steven J.M. Jones. On The Deep Order-Preserving Submatrix Problem: A Best-Effort Approach. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 24(1), 309-325, 2012.
44. Fuzhen Zhuang, Ping Luo, Zhiyong Shen, Qing He, Yuhong Xiong, Zhongzhi Shi, Hui Xiong., Mining Distinction and Commonality across Multiple Domains using Generative Model for Text Classification. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 24(11): 2025 - 2039, 2012.
45. Qi Liu, Enhong Chen, Hui Xiong, Chris H.Q. Ding, Jian Chen. Enhancing Collaborative Filtering by User Interests Expansion via Personalized Ranking. *IEEE Transactions on Systems, Man, and Cybernetics — Part B (TSMCB)*, 42(1): 218-233, 2012.
46. Aabhas Paliwal, Basit Shafiq, Jaideep Vaidya, Hui Xiong, and Nabil Adam, Semantics Based Automated Service Discovery, *IEEE Transactions on Services Computing (TSC)*, Vol 5, No 2, pp. 260-275, 2012.
47. Xiaobin Ma, Chengyang Zhang, Shashi Shekhar, Yan Huang, Hui Xiong. On multi-type reverse nearest neighbor search. *Data Knowledge Engineer*, 70(11): 955-983, 2011.
48. Qiming Luo, Enhong Chen, Hui Xiong. A semantic term weighting scheme for text categorization. *Expert System Application*, 38(10): 12708-12716, 2011.
49. Wenjun Zhou, Hui Xiong. Checkpoint Evolution for Volatile Correlation Computing. *Machine Learning*, 83(1): 103-131, 2011.
50. Yong Ge, Hui Xiong, Wenjun Zhou, Siming Li and Ramendra Sahoo. Multi-focal Learning for Customer Problem Analysis. *ACM Transaction on Intelligent Systems and Technology (TIST)*, 2(3): 24:1-24:22, 2011.
51. Xiaobin Ma, Chengyang Zhang, Shashi Shekhar, Yan Huang, and Hui Xiong. On Multi-type Reverse Nearest Neighbor Search. *Data & Knowledge Engineering (DKE)*, 70(11): 955-983, 2011.
52. Fuzhen Zhuang, Ping Luo, Hui Xiong, Qing He, Yuhong Xiong, Zhongzhi Shi. Exploiting Associations between Word Clusters and Document Classes for Cross-domain Text Categorization. *Statistical Analysis and Data Mining*, 4(1): 100 - 114, 2011.
53. Shiwei Zhu, Junjie Wu, Hui Xiong, and Guoping Xia. Scaling up Top-K Cosine Similarity Search. *Data and Knowledge Engineering (DKE)*, 70(1): 60-83, 2011.
54. Junjie Wu, Hui Xiong, Jian Chen. COG: Local Decomposition for Rare Class Analysis. *Data Mining and Knowledge Discovery Journal (DMKD)*, 20(2): 191 - 220, 2010.
55. Fuzhen Zhuang, Ping Luo, Hui Xiong, Yuhong Xiong, Qing He, Zhongzhi Shi. Cross-domain Learning From Multiple Sources: A Consensus Regularization Perspective. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 22(12): 1664-1678, 2010.
56. Baik Hoh, Marco Gruteser, Hui Xiong, Ansaif Alrabady. Achieving Guaranteed Anonymity in GPS Traces via Uncertainty-Aware Path Cloaking. *IEEE Transactions on Mobile Computing (TMC)*, 9(8): 1089-1107, 2010. (selected as the Spotlight Paper for the August 2010 issue)
57. Junjie Wu, Hua Yuan, Hui Xiong, Guoqing Chen. Validation of overlapping clustering: A random clustering perspective. *Information Science*. 180(22): 4353 - 4369, 2010.
58. Cui Yu, Rui Zhang, Yaochun Huang, Hui Xiong. High-dimensional kNN joins with incremental updates, the *GeoInformatica*. An Int'l Journal on Advances of Computer Science for Geographic Information System, 14(1): 55 - 82, 2010.
59. Hua Yuan, Guoqing Chen, Junjie Wu, and Hui Xiong. Towards Controlling Virus Propagation in Information Systems with Point-to-Group Information Sharing, *Decision Support Systems*, 48(1):57-68, 2009.

60. Hui Xiong, Junjie Wu, and Jian Chen. K-means Clustering Versus Validation Measures: A Data Distribution Perspective. *IEEE Transactions on Systems, Man, and Cybernetics — Part B (TSMCB)*, 39(2): 318-331, 2009.
61. Ping Luo, Hui Xiong, Guoxing Zhan, Junjie Wu, Zhongzhi Shi. Information-Theoretic Distance Measures for Clustering Validation: Generalization and Normalization. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*. 21(9): 1249-1262, 2009.
62. Xing Jiang, Hui Xiong, Chen Wang, Ah-Hwee Tan, Mining Globally Distributed Frequent Subgraphs in a Single Labeled Graph, *Data & Knowledge Engineering (DKE)*, Vol. 68, No. 10, pp. 1034 - 1058, 2009.
63. Hui Xiong, Michael Steinbach, Arifin Ruslim, Vipin Kumar, Characterizing Pattern Preserving Clustering, the *Knowledge and Information Systems (KAIS)* 19(3): 311-336, 2009.
64. Dihua Guo, Hui Xiong, Vijay Atluri, Nabil Adam, Object Discovery in High-Resolution Remote Sensing Imagery: A Semantic Perspective, the *Knowledge and Information Systems (KAIS)* 19(2): 211-233, 2009.
65. Hui Xiong, Michael Steinbach, Arifin Ruslim, Vipin Kumar. Characterizing pattern preserving clustering. *Knowl. Inf. Syst.* 19(3): 311-336, 2009.
66. Hui Xiong, Wenjun Zhou, Mark Brodie, Sheng Ma. TOP-K  $\phi$  Correlation Computation. *INFORMS Journal on Computing (JOC)*, 20(4): 539-552, 2008.
67. Tianming Hu, Sam Y Sung, Hui Xiong, Qian Fu. Discovery of Maximum Length Frequent Itemsets. *Information Sciences*, 178(1): 69 - 87, 2008.
68. Tianming Hu, Chew Lim Tan, Yong Tang, Sam Yuan Sung, Hui Xiong, Chao Qu. Co-clustering Bipartite with Pattern Preservation for Topic Extraction. *International Journal on Artificial Intelligence Tools (IJAIT)*, 17(1): 87-107, 2008.
69. Tiejun Qian, Hui Xiong, Yuanzhen Wang, Enhong Chen, On the Strength of Hyperclique Patterns for Text Categorization, *Information Sciences*, 177(19): 4040-4058, 2007.
70. Yaochun Huang, Hui Xiong, Weili Wu, Ping Deng, Zhongnan Zhang, Mining Maximal Hyperclique Pattern: A Hybrid Search Strategy, *Information Sciences*, 177(3): 703 - 721, 2007.
71. Hui Xiong, Michael Steinbach, Vipin Kumar, Privacy Leakage in Multi-relational Databases: A Semi-supervised Learning Perspective, *VLDB Journal Special Issue on Privacy Preserving Data Management*, 15(4): 388-402, 2006.
72. Hui Xiong, Shashi Shekhar, Pang-Ning Tan, Vipin Kumar, TAPER: A Two-Step Approach for All-strong-pairs Correlation Query in Large Databases, *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 18(4): 493-508, 2006.
73. Hui Xiong, Pang-Ning Tan, and Vipin Kumar. Hyperclique Pattern Discovery. *Data Mining and Knowledge Discovery Journal*, 13(2): 219-242, 2006.
74. Hui Xiong, Gaurav Pandey, Michael Steinbach, Vipin Kumar. Enhancing Data Analysis with Noise Removal. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 18(3): 304-319, 2006.
75. Yao Liu, Sam Y. Sung, Hui Xiong. A Cubic-Wise Balance Approach for Privacy Preservation in Data Cubes, *Information Sciences*, 176(9): 1215-1240, 2006.
76. Yan Huang, J. Pei, and Hui Xiong. Mining Co-location Patterns in Spatial Data Sets with Rare Events. *GeoInformatica - An International Journal on Advances of Computer Science for Geographic Information Systems*, 10(3), 2006.
77. Jieping Ye, Qi Li, Hui Xiong, Haesun Park, Ravi Janardan, and Vipin Kumar. IDR/QR. An Incremental Dimension Reduction Algorithm via QR Decomposition. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, Special Issue - Intelligent Data Preparation, 17(9): 1208-1222, 2005.
78. Yan Huang, Shashi Shekhar, and Hui Xiong (Corresponding Author), Discovering Co-location Patterns from Spatial Datasets: A General Approach, *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 16(12): 1472 - 1485, December 2004.

## Conference Papers

1. Kai Zhang, Chuanren Liu, Jie Zhang, Hui Xiong, Eric Xing and Jieping Ye. Finding Structures of Large Matrices Through Compression.. The 23rd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD-2017), Halifax, Nova Scotia, Canada, 2017.
2. Hao Wang, Yanmei Fu, Qinyong Wang, Changying Du, Hongzhi Yin and Hui Xiong. A Location-Sentiment-Aware Recommender System for Both Home-Town and Out-of-Town Mobile Users.. The 23rd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD-2017), Halifax, Nova Scotia, Canada, 2017.
3. Junming Liu, Leilei Sun, Qiao Li, Jingci Ming, Yanchi Liu and Hui Xiong. Functional Zone Based Hierarchical Demand Prediction For Bike System Expansion.. The 23rd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD-2017), Halifax, Nova Scotia, Canada, 2017.
4. Junming Liu, Yanjie Fu, Jingci Ming, Yong Ren, Leilei Sun and Hui Xiong. Effective and Real-time In-App Activity Analysis in Encrypted Internet Traffic Streams, The 23rd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD-2017), Halifax, Nova Scotia, Canada, 2017.
5. Yanchi Liu, Chuanren Liu, Xinjiang Lu, Mingfei Teng, Hengshu Zhu, Hui Xiong. Point of Interest Demand Modeling with Human Mobility Patterns, The 23rd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD-2017), Halifax, Nova Scotia, Canada, 2017.
6. Sen Yang, Xin Dong, Leilei Sun, Yichen Zhou, Richard A. Farneth, Hui Xiong, Randall S. Burd, Ivan Marsic. A Data-driven Process Recommender Framework, The 23rd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD-2017), Halifax, Nova Scotia, Canada, 2017.
7. Yanjie Fu, Charu Aggarwal, Srinivasan Parthasarathy, Deepak S. Turaga, and Hui Xiong. REMIX: Automated Exploration for Interactive Outlier Detection.. The 23rd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD-2017), Halifax, Nova Scotia, Canada, 2017
8. Huayu Li, Yong Ge, Hengshu Zhu, Hui Xiong and Hongke Zhao. Prospecting the Career Development of Talents: A Survival Analysis Perspective. The 23rd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD-2017), Halifax, Nova Scotia, Canada, 2017  
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9. Hao Lin, Hengshu Zhu, Yuan Zuo, Chen Zhu, Junjie Wu and Hui Xiong. Collaborative Company Profiling: Insights from an Employee's Perspective. In Proceedings of the Thirty-First AAAI Conference on Artificial Intelligence (AAAI-17), 1417-1423, 2017.
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129. Aabhas Paliwal, Nabil Adam, and Hui Xiong, Web Service Discovery via Semantic Association Ranking and Hyperclique Pattern Discovery, in Proceedings of the 2006 IEEE/WIC/ACM International Conference on Web Intelligence (**WI 2006**), pp. 649-652, 2006.
130. Tiejun Qian, Hui Xiong, Yuanzhen Wang, Enhong Chen, Adapting Association Patterns for Text Categorization: Weakness and enhancements, in Proceedings of the ACM Conference on information and Knowledge Management (**ACM CIKM 2006**), pp. 782 - 783, 2006.
131. Gyorgy Simon, Hui Xiong, Eric Eilertson, and Vipin Kumar, Scan Detection: A Data Mining Approach, in Proceedings of the Sixth SIAM International Conference on Data Mining (**SDM 2006**), pp. 118 - 129, 2006.

132. Hui Xiong, Michael Steinbach, and Vipin Kumar, Privacy Leakage in Multi-relational Databases via Pattern based Semi-supervised Learning, in Proceedings of the ACM International Conf. on Information and Knowledge Management (**ACM CIKM 2005**), pp. 355-356, 2005.
133. Hui Xiong, Xiaofeng He, Chris Ding, Ya Zhang, Vipin Kumar, Stephen R. Holbrook, Identification of Functional Modules in Protein Complexes via Hyperclique Pattern Discovery, in Proceedings of the Pacific Symposium on Biocomputing (**PSB 2005**), 2005.
134. Hui Xiong, Shashi Shekhar, Pang-Ning Tan, and Vipin Kumar, Exploiting a Support-based Upper Bound of Pearson's Correlation Coefficient for Efficiently Identifying Strongly Correlated Pairs, in Proceedings of the Tenth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**KDD 2004**), pp. 334 - 343, Seattle, USA, 2004.
135. Jieping Ye, Qi Li, Hui Xiong, Haesun Park, Ravi Janardan, Vipin Kumar. IDR/QR: An Incremental Dimension Reduction Algorithm via QR Decomposition, in Proceedings of the ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**KDD 2004**), pp. 364 - 373, Seattle, USA, 2004.
136. Michael Steinbach, Pang-Ning Tan, Hui Xiong, Vipin Kumar, Generalizing the Notion of Support, in Proceedings of the Tenth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (**KDD 2004**), pp. 689 - 694, Seattle, USA, 2004.
137. Hui Xiong, Michael Steinbach, Pang-Ning Tan, and Vipin Kumar, HICAP: Hierarchical Clustering with Pattern Preservation, in Proceedings of the 2004 SIAM International Conference on Data Mining (**SDM 2004**), pp. 279 - 290, Florida, USA, 2004.
138. Hui Xiong, Shashi Shekhar, Yan Huang, Vipin Kumar, Xiaobin Ma, Jin-Soung Yoo, A Framework for Discovering Co-location Patterns in Data Sets with Extended Spatial Objects, in Proceedings of the 2004 SIAM International Conference on Data Mining (**SDM 2004**), pp. 78 - 89, Florida, USA, 2004.
139. Hui Xiong, Pang-Ning Tan, and Vipin Kumar, Mining Strong Affinity Association Patterns in Data Sets with Skewed Support Distribution, In Proceedings of the Third IEEE International Conference on Data Mining (**ICDM 2003**), pp. 387-394, Florida, USA, 2003.

#### Magazine Articles

1. Xiaojun Quan, Liu Wenyin, Wenyu Dou, Hui Xiong, Yong Ge, "Link Graph Analysis for Business Site Selection", Vol. 45, No. 3, pp. 64 - 69, **IEEE Computer**, 2012.
2. Baik Hoh, Marco Gruteser, Hui Xiong, Ansaif Alrabady, Enhancing Security and Privacy in Traffic-Monitoring Systems, **IEEE Pervasive Computing**, vol. 5, no. 4, pp. 38-46, October - December, 2006.

#### System Demo

1. Yong Ge, Chuanren Liu, Hui Xiong, A Taxi Business Intelligence System, accepted by the 17th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD 2011), pp. 735 - 738, 2011.

#### Book Chapters

1. Hui Xiong, Zhongmou Li: Clustering Validation Measures. Data Clustering: Algorithms and Applications, pp. 571-606, 2013.
2. Hui Xiong, Pang-Ning Tan, Vipin Kumar, Wenjun Zhou, Mining Hyperclique Patterns: A Summary of Results, Data Mining Patterns: New Methods and Applications, Pascal Poncelet, Maguelonne Teisseire, Florent Masseglia (Eds), ISBN: 978-159904162-9, pp. 57 - 84, Information Science Reference, 2007.
3. Hui Xiong, Michael Steinbach, Vipin Kumar, Wenjun Zhou, Pattern Preserving Clustering, Encyclopedia of Data Warehousing and Mining, Idea Group Inc., 2007.



## RESEARCH GRANTS

- Principal Investigator, "Big Data Laboratory at Rutgers Business School Joint with IFLYTEK Co., Ltd.", IFLYTEK Co., Ltd, \$1 million, 2017 - 2022.
- Principal Investigator, "Towards the Development of Smart Bike Sharing Systems", National Science Foundation (NSF), \$99,933.00, 2016 - 2017.
- Principal Investigator, "Encrypted Network Classification and Service Quality Scoring", Futurewei Technologies Inc., \$200,000.00, 2016 - 2018.
- Principal Investigator, "Enhancing the Capacity for Information Assurance Education Through Interdisciplinary Collaboration", National Science Foundation (NSF), \$292,670.00, 2012 - 2015.
- Principal Investigator, "Sequential Recommender Systems in Mobile and Pervasive Environments", National Science Foundation (NSF), \$74,907.00, 2012 - 2014.
- Principal Investigator, "Network Data Analytics for New Business Opportunities/Monetization", Futurewei Technologies Inc., \$20,000.00, 2012 - 2014.
- Principal Investigator, "A Stochastic Model for Context-Aware Outlier Detection in Indoor Location Traces", AwarePoint Inc., \$37,500.00, 2012 - 2014.
- Principal Investigator, "Health Asset Management", AwarePoint Inc., \$12,500.00, 2011 - 2012.
- Principal Investigator, "NeTSE:Small:Collaborative Research: MILAN: Multi-Modal Passive Intrusion Learning in Pervasive Wireless Environments", National Science Foundation (NSF), \$260,219.00, 2010 - 2014.
- Co-Principal Investigator, "Phase I: I/UCRC: Center for Dynamic Data Analytics (CDDA)", National Science Foundation (NSF), Continuing Grant, Awarded amount to Date: \$391,100.00, 2011 - 2016.
- Principal Investigator, "Extracting Energy-Efficient Transportation Patterns from Location Traces", Rutgers Seed Funding for Collaborative Computing Research - Green Computing Initiative, \$40,000.00, 2009 - 2010.
- Co-Principal Investigator, "Planning Grant: I/UCRC for Dynamic Data Analytics", National Science Foundation (NSF), \$10,000.00, 2009 - 2010. (PI: Dimitris Metaxas)
- Principal Investigator, "Evolving Anomaly Detection for Incidence Management", Panasonic Inc., \$50,000.00, 2009.
- Principal Investigator, "Exploiting Location Sensing Data for Characterizing Movement Patterns", IBM Exploratory Stream Analytics Innovation Award, \$20,000.00, 2008.
- Co-Principal Investigator, "CT-ISG: ROME: Robust Measurement in Sensor Networks", National Science Foundation (NSF), \$400,000.00, 2008 - 2011. (PI: Yanyong Zhang)
- Principal Investigator, "Mobile Web Usage Profiling for System Performance Tuning", Rutgers Seed Funding for Collaborative Computing Research, \$50,000.00, 2008 - 2010.
- Principal Investigator, "A Collaborative Research Study of Data Mining in Mobile Computing", Rutgers Vice President for Research and Graduate and Professional Education, \$60,000.00, 2007 - 2010.
- Principal Investigator, RBS Research Resources Committee Grant, \$4,500.00, Rutgers Business School, July 2008 - June 2009.
- Co-Principal Investigator, "Center of Excellence for Cyber-Security and Information Assurance (CSIA)", 2007-2008 Rutgers Academic Excellence Fund (AEF) Award, \$75,000.00. (PI: W. Art Chaovalitwongse)
- Co-Principal Investigator, "Service-oriented architectures supporting Networks Of Public Security - SoCNOS," The German Ministry for Education and Research, \$566,000.00, 2007-2009. (PI: Nabil Adam)
- Co-Principal Investigator, "Information Technology for Emergency Management (iTeam)", 2007-2008 Rutgers Academic Excellence Fund (AEF) Award, \$40,000.00. (PI: Nabil Adam)

- Principal Investigator, RBS Research Resources Committee Grant, \$4,200.00, Rutgers Business School, July 2007 - June 2008.
- Co-Principal Investigator, "Improving Business Knowledge Management and Analysis Through the use of the RFID Technology and Semantic Web Services," SAP Research Labs, \$100,000.00, 2006-2007, (PI: Nabil Adam).

#### DEPARTMENTAL/UNIVERSITY SERVICE

- **Vice Chair**, MSIS Department, 2011 - 2014, 2015 - Present
- **Director**, Rutgers Center for Information Assurance, 2011 - Present.
- **Program Coordinator**, the Master of Information Technology, Rutgers Business School, 2011 - 2015
- **Ph.D. IT Coordinator**, Rutgers Business School, 2011 - 2015.
- **Member**, Undergraduate Program Policy Committee, Rutgers Business School, 2008-2009.
- **Member**, Research Resource Committee, January 2010 - 2011.

#### MEDIA HIGHLIGHTS

- **Interviewed and Quoted by Star Ledger** regarding Rutgers Information Systems, 2010.
- **Interviewed and Quoted by Forbes** in the article "The Ethics of Big Data", 2014.
- **Interviewed and Featured by Economist** in the article "Cutpurse capers", 2016.

#### PROFESSIONAL ACTIVITIES

##### **Professional Affiliations**

- ACM Distinguished Scientist
- IEEE Senior Member

##### **Journal Editorship**

- **Associate Editor**, *IEEE Transactions on Data and Knowledge Engineering (TKDE)*, 2013 - Present.
- **Associate Editor**, *ACM Transactions on Management Information Systems (TMIS)*, 2015 - Present.
- **Associate Editor**, *ACM Transactions on Knowledge Discovery from Data (TKDD)*, 2015 - Present.
- **Associate Editor**, *IEEE Transactions on Big Data (TBD)*, 2015 - Present.
- **Associate Editor**, *the Knowledge and Information Systems Journal (KAIS)*, Springer, 2007 - Present.
- **Editorial Board Member**, *Journal of Big Data*, Springer, 2014 - Present.
- **Special Issue Editor**, *ACM Transactions on Intelligent Systems and Technology*, Special Issue on Intelligent Mobile Knowledge Discovery and Management Systems
- **Special Issue Editor**, *World Wide Web Journal: Special Issue on Web Information Management in the Big Data Era*, 2013.

##### **Conference Organizers**

- Research Track Program Committee Co-Chair, the 24th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD), 2018.
- Program Committee Vice Chair, IEEE Int'l Conference on Data Mining (ICDM), 2017.
- Program Committee Co-Chair, the 21st International Conference on Database Systems for Advanced Applications, 2016.
- General Co-Chair, IEEE Int'l Conference on Data Mining (ICDM), 2015.
- Tutorial Co-Chair, IEEE Int'l Conference on Data Mining (ICDM), 2014.
- Sponsorship Chair, the 2014 SIAM International Conference on Data Mining (SDM), 2014.
- Program Committee Co-Chair, IEEE Int'l Conference on Data Mining (ICDM), 2013.

- Program Committee Chair, The 14th International Conference on Web-Age Information Management (WAIM), 2013.
- Exhibits and Demos Co-Chair, 19th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD), 2013.
- Industry and Government Track Co-Chair, the 18th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD), 2012.
- Program Committee Vice Chair, IEEE Int'l Conference on Data Mining (ICDM), 2012.
- General Chair, National Database Conference of China (NDBC), 2012
- Tutorial Chair, The 2012 IEEE/WIC/ACM International Conference on Web Intelligence (WI), 2012.
- Finance Chair, the 28th IEEE International Conference on Data Engineering (ICDE), 2012.
- Program Committee Chair, the 5th International Conference on Knowledge Science, Engineering & Management (KSEM), 2011.
- Exhibits and Demos Co-Chair, 17th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD), 2011.
- Program Committee Vice Chair, the IEEE/WIC/ACM Int'l Conf. on Web Intelligence (WI), 2011.
- Tutorial Chair, the 15th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD), 2011.
- Program Committee Vice Chair, the Tenth IEEE International Conference on Data Mining (ICDM), 2010.
- Session Chair, the 16th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD), 2010.
- Program Committee Chair, the Workshop on Secure Knowledge Management (SKM 2010).
- Program Committee Chair, the 1st International Conference on Networking and Distributed Computing, 2010.
- Program Committee Vice Chair, The 2010 IEEE/WIC/ACM International Conference on Web Intelligence (WI-10).
- Publicity Chair, the 2010 NASA's Conference on Intelligent Data Understanding (CIDU'01), 2010.
- Publication Chair, the Tenth SIAM International Conference on Data Mining (SDM), 2010.
- Session Chair, the 15th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD), 2009.
- Session Chair, Pervasive Data Mining Session at INFORMS 2009 Annual Meeting, 2009.
- Publicity Chair, the 15th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD), 2009.
- Co-Chair, the Second International Workshop on Semantic Aspects in Data Mining (SADM'09) In conjunction with the 2009 IEEE International Conference on Data Mining (ICDM), 2009.
- Session Chair, the 14th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD), 2008.
- Co-Chair, the First International Workshop on Semantic Aspects in Data Mining (SADM'08) In conjunction with the 2008 IEEE International Conference on Data Mining (ICDM), 2008.
- Track Chair, "Data Mining in Business" in conjunction with the IEEE Symposium on Advanced Management of Information for Globalized Enterprises (AMIGE), 2008.
- Session Chair, the Seventh IEEE International Conference on Data Mining (ICDM), 2007.
- Session Chair, the 13th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD), 2007.
- Session Chair for Learning, the Seventh SIAM Int'l Conf. on Data Mining (SDM), 2007.

- Publicity Chair, the Seventh SIAM International Conf. on Data Mining (SDM), 2007.
- Awards Chair, the Sixth International Conference on Machine Learning and Applications (ICMLA), 2007.
- Session Chair for Pattern Mining, the Sixth SIAM Int'l Conf. on Data Mining (SDM), 2006.
- Program Committee Vice Chair, the 18th IEEE Int'l Conf. on Tools with Artificial Intelligence (ICTAI), 2006.
- Publicity Chair, the Sixth IEEE International Conference on Data Mining (ICDM), 2006.
- Special Sessions and Tutorials Chair, The Fifth International Conference on Machine Learning and Applications (ICMLA), 2006.
- Publicity Chair, the IEEE/WIC/ACM Int'l Conf. on Web Intelligence (WI), 2006.
- Publicity Chair, the IEEE/WIC/ACM International Conference on Intelligent Agent Technology (IAT), 2006.
- Program Committee Vice Chair, the Ninth Pacific Rim International Conference on Artificial Intelligence (PRICAI), 2006

#### **Research Proposal Review**

- **NSF Panelists** in the Information and Intelligent Systems Division, 2006, 2009, 2011, 2012, 2014, 2015.
- **NSF External Reviewer**, 2007, 2011, 2014, 2015.
- **External Reviewer**, Hongkong Research Grants Council, 2013, 2014.
- **IEEE Senior Member Review Panelist**, 2011.
- **External Reviewer**, IWT.Flemish government Agency for Innovation by Science and Technology, 2011.
- **External Reviewer**, The Natural Sciences and Engineering Research Council of Canada (NSERC), 2009, 2011.
- **External Reviewer**, Nanyang Technological University, Singapore, 2009, 2014.

#### **Senior Program Committees**

- 2018, the 27th International World Wide Web (WWW) Conference
- 2017, the 26th ACM Conference on Information and Knowledge Management (CIKM).
- 2017, the 12th SIAM International Conference on Data Mining (SDM).
- 2017, the 21th Pacific-Asia International Conf. on Knowledge Discovery and Data Mining (PAKDD).
- 2016, the ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD).
- 2016, the 20th Pacific-Asia International Conf. on Knowledge Discovery and Data Mining (PAKDD).
- 2015, the ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD).
- 2015, the ACM International Conference on Web Search and Data Mining (WSDM).
- 2015, the 27th International Joint Conference on Artificial Intelligence (IJCAI).
- 2015, the SIAM International Conference on Data Mining (SDM).
- 2015, the 19th Pacific-Asia International Conf. on Knowledge Discovery and Data Mining (PAKDD).
- 2014, the 20th ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD).
- 2014, the ACM International Conference on Web Search and Data Mining (WSDM).
- 2014, the 2014 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM)
- 2014, the 18th Pacific-Asia Conf. on Knowledge Discovery and Data Mining (PAKDD).
- 2013, the 22nd ACM Conference on Information and Knowledge Management (CIKM).
- 2010, the 16th ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD).

- 2013, the 17th Pacific-Asia Conf. on Knowledge Discovery and Data Mining (PAKDD).

#### **Program Committees**

- 2017, the 22th ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD).
- 2017, the 26nd International World Wide Web Conference (WWW).
- 2016, the IEEE 31st International Conference on Data Engineering (ICDE).
- 2016, the 28th International Joint Conference on Artificial Intelligence (IJCAI).
- 2016, The IEEE International Conference on Data Mining (ICDM)
- 2015, the AAAI Conference on Artificial Intelligence (AAAI).
- 2014, the AAAI Conference on Artificial Intelligence (AAAI).
- 2014, The IEEE International Conference on Data Mining (ICDM)
- 2014, the 23rd International World Wide Web Conference (WWW).
- 2013, the 22nd International World Wide Web Conference (WWW).
- 2013, the 19th ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD).
- 2013, the 12th SIAM International Conference on Data Mining (SDM).
- 2013, the IEEE 28th International Conference on Data Engineering (ICDE).
- 2013, the Sixth ACM International Conference on Web Search and Data Mining (WSDM).
- 2013, the 22nd International World Wide Web Conference (WWW).
- 2013, the 20th Pacific-Asia International Conf. on Knowledge Discovery and Data Mining (PAKDD).
- 2012, the 11th SIAM International Conference on Data Mining (SDM).
- 2012, The IEEE International Conference on Data Mining (ICDM)
- 2012, the 2012 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM).
- 2011, the 17th ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD).
- 2011, the Tenth SIAM International Conference on Data Mining (SDM).
- 2011, the Twenty-second International Joint Conference on Artificial Intelligence (IJCAI).
- 2010, the 11th ACM Conference on Electronic Commerce (SIGECOM)
- 2010, the IEEE 26th International Conference on Data Engineering (ICDE).
- 2010, the Ninth SIAM International Conference on Data Mining (SDM).
- 2010, the 19th ACM Conference on Information and Knowledge Management (CIKM).
- 2010, the 11th annual International Digital Government Research Conference (DG.O).
- 2009, the 26th International Conference on Machine Learning (ICML)
- 2009, the 15th ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD).
- 2009, The IEEE International Conference on Data Mining (ICDM)
- 2009, the 18th ACM Conference on Information and Knowledge Management (CIKM).
- 2009, the Ninth SIAM International Conference on Data Mining (SDM).
- 2009, the 12th International Conference on Business Information Systems (BIS).
- 2008, the 14th ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD).
- 2008, the Twenty-Third AAAI Conference on Artificial Intelligence (AAAI).
- 2008, the Eighth SIAM International Conference on Data Mining (SDM).
- 2008, The Eighth IEEE International Conference on Data Mining (ICDM).
- 2008, the 17th ACM Conference on Information and Knowledge Management (CIKM).

- 2007, the 13th ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD).
- 2007, the Seventh SIAM International Conference on Data Mining (SDM).
- 2007, the IEEE 23rd International Conference on Data Engineering (ICDE).
- 2007, The Seventh IEEE International Conference on Data Mining (ICDM).
- 2007, the 16th ACM Conference on Information and Knowledge Management (CIKM).
- 2006, the 6th IEEE International Conference on Data Mining (ICDM).
- 2006, the 12th ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD).
- 2006, the 15th ACM Conference on Information and Knowledge Management (CIKM).
- 2006, the Sixth SIAM International Conference on Data Mining (SDM).

### Tutorials

- Knowledge Discovery in Data, Sponsored by Vice President for Research, Rutgers, the State University of New Jersey, November 2007.

### Talks

- Talent Analytics: Prospects and Opportunities, Educational Testing Service (ETS), 2017.
- Talent Analytics: Prospects and Opportunities, Society of Quantitative Analysts, 2017.
- People Analytics in Human Resources, Data Science of China Track, the 2016 ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD), 2016.
- Trend Analysis of Recruitment Market with Sequential Latent Variable Model, the 2016 ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD), 2016.
- Big Data Analytics in Mobile Environments, Keynote Talk, MobileDM&HuMoComp workshop, IEEE International Conference on Data Mining (ICDM) 2015.
- Big Data Analytics in Business Environments, Bell Labs, 2014
- Big Data Analytics in Business Environments, Keynote Talk, the 8th Workshop on Social Network Mining and Analysis for Business, Consumer and Social Insights, SNA KDD 2014.
- Temporal Skeletonization on Sequential Data: Patterns, Categorization, and Visualization, Nanjing University, 2014.
- Big Data Analytics in Business Environments, Keynote Talk, the 5th China Conference on Data Mining, 2014.
- Big Data Analytics in Mobile Social Environments, Tsinghua University, 2013.
- Big Data Analytics in Mobile Environments, Keynote Talk, the 29th National Database Conference of China, 2012.
- What's Special about Mobile Recommender System, University of Minnesota, Arizona State University, Tsinghua University, 2011.
- Towards the Next Generation of Mobile Recommender Systems, Temple University, University of Science and Technology of China, 2010.
- The Preparedness of an Early Academic Life, Beihang University, 2010.
- Financial Fraud Detection with Data Mining Techniques, the International Conference on E-business and E-government, Keynote Talk, 2010.
- Efficient Discovery of Confounders in Large Data Sets, Tsinghua University, University of Science and Technology of China (USTC), 2010.
- Financial Fraud Detection and Prevention with Data Mining Techniques, New Jersey Institute Technology, 2010.
- Financial Fraud Detection and Prevention with Data Mining Techniques, Tsinghua University, Beihang University, University of Science and Technology of China, Syracuse University, 2009.

- SAIL: Summation-based Incremental Learning for Information-Theoretic Clustering, the 14th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD-2008), Las Vegas, USA, 2008.
- COG: Local Decomposition for Rare Class Analysis, Fudan University, University of Science and Technology of China, China, 2008.
- A Generalization of Proximity Functions for K-means, the Seventh IEEE International Conference on Data Mining (ICDM-2007), Omaha, NE, USA, 2007.
- Failure Prediction in IBM BlueGene/L Event Logs, the Seventh IEEE International Conference on Data Mining (ICDM-2007), Omaha, NE, USA, 2007.
- TOP-K Phi Correlation Computation, Fudan University, Tsinghua University, the Chinese Academy of Sciences, the Hong Kong Polytechnic University, University of Science and Technology of China, and Sun Yat-sen University, 2007.
- The Road to A Ph.D., the Chinese Academy of Sciences, University of Science and Technology of China, Fudan University, 2007.
- Association Pattern Discovery: A Statistical Computing Perspective, Virginia Tech, Washington University, University of Texas at Dallas, and George Washington University, invited talks, 2006.
- Identification of Functional Modules in Protein Complexes via Hyperclique Pattern Discovery, the Pacific Symposium on Biocomputing, (PSB 2005), USA, 2005.
- Exploiting a Support-based Upper Bound of Pearson's Correlation Coefficient for Efficiently Identifying Strongly Correlated Pairs, the Tenth ACM SIGKDD Int'l Conf. on Knowledge Discovery and Data Mining (KDD 2004), Seattle, USA, 2004.
- Hyperclique Pattern Discovery and Its Application to Protein Functional Module Extraction, Lawrence Berkeley National Laboratory (LBL), CA, USA, July 2004.
- HICAP: Hierarchical Clustering with Pattern Preservation, the Fourth SIAM International Conference on Data Mining (SDM), Lake Buena Vista, Florida, USA, April 2004.
- A Framework for Discovering Co-location Patterns in Data Sets with Extended Spatial Objects, the Fourth SIAM Int'l Conf. on Data Mining (SDM), Florida, USA, April 2004.

### Journal Review

- Artificial Intelligence
- Annals of Operations Research (ANOR)
- IEEE Transactions on Knowledge and Data Engineering (TKDE)
- IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)
- IEEE Transactions on Multimedia
- IEEE Transactions on Systems, Man and Cybernetics - Part B
- IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)
- IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)
- Data Mining and Knowledge Discovery Journal
- Geoinformatica
- The VLDB Journal
- ACM Transactions on Information Systems (TOIS)
- IEEE/ACM Transactions on Computational Biology and Bioinformatics (TCBB)
- ACM Transactions on Knowledge Discovery in Data (TKDD)
- ACM Transactions on Database Systems (TODS)
- ACM Journal of Data and Information Quality