

SDM18 List of Accepted Papers

Paper Title	Author Names
A Family of Tractable Graph Distances	Jose Bento*, Boston College; Stratis Ioannidis, Northeastern University
A Novel Genetic Algorithm for Feature Selection in Hierarchical Feature Spaces	Pablo Silva*, Universidade Federal Fluminense; Alexandre Plastino, IC/UFF; Prof. Alex Freitas, University of Kent
A Practitioners' Guide to Transfer Learning for Text Classification using Convolutional Neural Networks	Tushar Semwal*, Indian Institute of Technology Guwahati; Gaurav Mathur, Samsung R&D Institute Bangalore; Promod Yenigalla, Samsung R&D Institute Bangalore; Shivashankar B. Nair, Indian Institute of Technology Guwahati
A Probabilistic Hough Transform for Opportunistic Crowd-sensing of Moving Traffic Obstacles	Michiaki Tatsubori*, IBM Research - Tokyo; Aisha Walcott, IBM Research - Africa; Reginald Bryant, IBM Research - Africa
A Rare and Critical Condition Search Technique and its Application to Telescope Stray Light Analysis	Keiichi Kisamori*, AIST
A Salient Ensemble of Trees using Cascaded Linear Classifiers with Feature-Cost Constraints	Chien-Wen Huang, National Taiwan University; Chung-Kuang Chou*, National Taiwan University; Ming-Syan Chen, National Taiwan University
Accelerating Time Series Searching with Large Uniform Scaling	Yilin Shen*, Samsung Research America; Yanping Chen, Samsung Research America; Eamonn Keogh, UC Riverside; Hongxia Jin, Samsung Research America
ALE: Additive Latent Effect Models for Grade Prediction	Zhiyun Ren*, George Mason University; Xia Ning, Indiana University - Purdue University Indianapolis; Huzefa Rangwala, George Mason University
An LSTM approach to Patent Classification based on Fixed Hierarchy Vectors	Marawan Shalaby, Technical University Munich; Jan Stutzki, LMU Munich; Matthias Schubert*, Ludwig-Maximilians-Universität München; Stephan Günnemann, Technical University of Munich
AspEm: Embedding Learning by Aspects in Heterogeneous Information Networks	Yu Shi*, UIUC; Huan Gui, Facebook; Qi Zhu, UIUC; Lance Kaplan, U.S. Army Research Laboratory; Jiawei Han, UIUC

Avoidance Region Discovery: A Summary of Results	Emre Eftelioglu*, University of Minnesota; Xun Tang, University of Minnesota; Shashi Shekhar, University of Minnesota
Black-box Expectation Propagation for Bayesian Models	Ximing Li*, Jilin University; Changchun Li, jilin university; Jinjin Chi, Jilin university; Jihong Ouyang, Jiling University; Wenting Wang, Jilin University
Brain EEG Time Series Selection: A Novel Graph-based Approach for Classification	Chenglong Dai, Nanjing University of Aeronautics and Astronautics; Dechang Pi*, Nanjing University of Aeronautics and Astronautics; Lin Cui, Nanjing University of Aeronautics and Astronautics
Causal Inference on Event Sequences	Kailash Budhathoki*, Max Planck Institute for Informatics; Jilles Vreeken, Max Planck Institute for Informatics and Saarland University
Classifying Multivariate Time Series by Learning Sequence-level Discriminative Patterns	Guruprasad Nayak*, University of Minnesota; Varun Mithal, LinkedIn; Xiaowei Jia, University of Minnesota; Vipin Kumar, University of Minnesota
Click versus Share: A Feature-driven Study of Micro-Video Popularity and Virality in Social Media	Jingtao Ding*, Tsinghua University; Yanghao Li, Tsinghua University; Yong Li, Tsinghua University; Depeng Jin, Tsinghua University
Co-regularized Monotone Retargeting for Semi-supervised LeTOR	Shalmali Joshi*, The University of Texas at Austin; Rajiv Khanna, The University of Texas at Austin; Joydeep Ghosh, UT Austin
Deep Attention Model for Triage of Emergency Department Patients	Djordje Gligorijevic*, Temple University; Jelena Stojanovic, Temple University; Wayne Satz, Temple University; Ivan Stojkovic, Temple University; Kraftin Schreyer, Temple University; Daniel Del Portal, Temple University; Zoran Obradovic, Temple University
Dense Neighborhood Pattern Sampling in Numerical Data	Arnaud Giacometti, University Francois Rabelais of Tours, France; Arnaud Soulet*, University François Rabelais of Tours, France

Discovering Hidden Topical Hubs and Authorities in Online Social Networks	Roy Lee*, Singapore Management University; Ee-peng Lim, Singapore Management University; Tuan-Anh Hoang, L3S Research Center
Discriminative Prototype Set Learning for Nearest Neighbor Classification	Shin Ando*, Tokyo University of Science
EEG-based Motion Intention Recognition via Multi-task RNNs	Weitong Chen*, The University of Queensland; Sen Wang, Griffith University
Efficient and Effective Accelerated Hierarchical Higher-Order Logistic Regression for Large Data Quantities	Nayyar Zaidi*, Monash University; Francois Petitjean, Monash University; Geoff Webb, Monash
Efficient Search of the Best Warping Window for Dynamic Time Warping	Chang Wei Tan*, Monash University; Matthieu Herrmann, Monash University; Germain Forestier, University of Haute Alsace; Geoff Webb, Monash; Francois Petitjean, Monash University
Embedding-based Relation Prediction for Ontology Population	Muhao Chen*, UCLA; Yingtao Tian, Stony Brook University; Xuelu Chen, UCLA; Zijun Xue, UCLA; Carlo Zaniolo, UCLA, USA
Ensemble-Spotting: Prioritizing Vibrant Communities via POI Embedding with Multi-view Spatial Graphs	Pengyang Wang, Missouri University of Science and Technology; Jiawei Zhang, Florida State University; Guannan Liu, Beihang University; Yanjie Fu*, Missouri University of Science and Technology; Charu Aggarwal, IBM
Evolving Separating References for Time Series Classification	Xiaosheng Li*, George Mason University; Jessica Lin, George Mason University
Exact Mean Computation in Dynamic Time Warping Spaces	Markus Brill, TU Berlin; Till Fluschnik, TU Berlin; Vincent Froese*, TU Berlin; Brijnesh Johannes Jain, TU Berlin; Rolf Niedermeier, TU Berlin; David Schultz, TU Berlin
Exploiting Structure for Fast Kernel Learning	Trefor Evans*, University of Toronto; Prasanth Nair, University of Toronto
Fast Flow-based Random Walk with Restart in a Multi-query Setting	Yujun Yan*, University of Michigan; Mark Heimann, University of Michigan; Di Jin, University of Michigan; Danai Koutra, U Michigan

Framework for Inferring Leadership Dynamics of Complex Movement from Time Series	CHAINARONG AMORNBUNCHORNVEJ*, University of Illinois at Chicago; Tanya Berger-Wolf, University of Illinois
Global Nonlinear Metric learning by Gluing Local Linear Metrics	Chaomin Shen*, East China Normal University
Graph Sketching-based Space-efficient Data Clustering	Anne Morvan*, CEA; Krzysztof Choromanski, Google; Cédric Gouy-Pailler, CEA; Jamal Atif, Université Paris-Dauphine
Group Centrality Maximization via Network Design	Sourav Medya*, UCSB; Arlei Lopes da Silva, UC, Santa Barbara; Ambuj Singh, UCSB; Prithwish Basu, Raytheon BBN Technologies; Ananthram Swami, Army Research Laboratory, Adelphi
Health-ATM: A Deep Architecture for Multifaceted Patient Health Record Representation and Risk Prediction	Tengfei Ma*, IBM T. J. Watson Research Center; Cao Xiao, IBM T. J. Watson Research Center; Fei Wang, Cornell University
Image Constrained Blockmodelling: A Constraint Programming Approach	Mohadeseh Ganji*, The University of Melbourne; Jeffrey Chan, RMIT University, Australia; Peter. J Stuckey, The University of Melbourne; James Bailey, The University of Melbourne; Christopher Leckie, University of Melbourne; Kotagiri Ramamohanarao, The University of Melbourne; Ian Davidson, UC Davis
Incorporating Interaction Coupling among Multi-View Spatiotemporal Contexts for Mobike Destination Prediction	Kunpeng Liu, Missouri University of Science and Technology; Pengyang Wang, Missouri University of Science and Technology; Jiawei Zhang, Florida State University; Guannan Liu, Beihang University; Yanjie Fu*, Missouri University of Science and Technology; Sajal K. Das, Missouri University of Science and Technology
Interpretable Categorization of Heterogeneous Time Series Data	Ritchie Lee*, Carnegie Mellon University Silicon Valley; Mykel Kochenderfer, Stanford University; Ole J. Mengshoel, Carnegie Mellon University; Joshua Silberman, Johns Hopkins University Applied Physics Laboratory

Investigating Deep Reinforcement Learning Techniques in Personalized Dialogue Generation	Min Yang*, Chinese Academy of Sciences; Jia Zhu, South China Normal University; Xiaojun Chen, Shenzhen University; Kai Lei, Peking University; Zhou Zhao, Zhejiang University
JUMP: A Fast Deterministic Algorithm to Find Closest Pair of Subsequences	Xingyu Cai*, University of Connecticut; Shanglin Zhou, University of Connecticut; Sanguthevar Rajasekaran, University of Connecticut
Latitude: A model for mixed linear-tropical matrix factorization	Sanjar Karaev*, Max Planck Institute for Informatics; James Hook, University of Bath; Pauli Miettinen, Max Planck Institute for Informatics
Learning Convolutional Text Representations for Visual Question Answering	Zhengyang Wang*, Washington State University; Shuiwang Ji, Washington State University
Learning Graph Representation via Frequent Subgraphs	Dang Nguyen*, Deakin University; Wei Luo, Deakin University; Tu Nguyen, "Deakin University, Australia"; Svetha Venkatesh, Deakin University; Dinh Phung, Deakin University
Learning to Interact with Users: A Collaborative-Bandit Approach	Konstantina Christakopoulou*, University of Minnesota; Arindam Banerjee, University of Minnesota
Limited-memory Common-directions Method for Distributed L1-regularized Linear Classification	Wei-Lin Chiang*, National Taiwan University; Yu-Sheng Li, National Taiwan University; Ching-pei Lee, University of Wisconsin-Madison; Chih-Jen Lin, National Taiwan University
Making Kernel Density Estimation Robust towards Missing Values in Highly Incomplete Multivariate Data without Imputation	Richard Leibbrandt*, Technische Universität München; Stephan Günnemann, Technical University of Munich
Many-to-many Correspondences between Partitions: Introducing a Cut-based Approach	Roland Glantz, Karlsruhe Institute of Technology (KIT); Henning Meyerhenke*, University of Cologne
Markov Chain Monitoring	Harshal Chaudhari*, Boston University; Michael Mathioudakis, Université de Lyon, CNRS; Evimaria Terzi, Boston University

Maximizing the Effect of Information Adoption: A General Framework	Tianyuan jin*, USTC; Tong Xu, University of Science and Technology of China; Hui Zhong, University of Science and Technology of China; Enhong Chen, University of Science and Technology of China; Zhefeng Wang, University of Science and Technology of China; Qi Liu, " University of Science and Technology of China, China"
Mining Top-k Quantile-based Cohesive Sequential Patterns	Len Feremans*, Universiteit Antwerpen; Boris Cule, Universiteit Antwerpen; Bart Goethals, Universiteit Antwerpen
Mixtures of Block Models for Brain Networks	Zilong Bai*, University of California, Davis; Peter Walker, Naval Medical Research Center; Ian Davidson, UC Davis
Modeling Co-Evolution Across Multiple Networks	Wenchao Yu*, UCLA; Charu Aggarwal, IBM; Wei Wang, UCLA
Modeling Item-specific Effects for Video Click	Fei Tan*, New Jersey Institute of Technology; Kuang Du, New Jersey Institute of Technology; Zhi Wei, New Jersey Institute of Technology; Haoran Liu, New Jersey Institute of Technology; Chenguang Qin, PPLive Inc; Ran Zhu, PPLive Inc
Multi-Layered Network Embedding	Jundong Li*, Arizona State University; Chen Chen, Arizona State University; Hanghang Tong, Arizona State University; Huan Liu, Arizona State University
Multi-Task Learning based Survival Analysis for Predicting Alzheimer's Disease Progression with Multi-Source Block-wise Missing Data	Yan Li*, University of Michigan; Tao Yang, Arizona State University; Jiayu Zhou, Michigan State University; Jieping Ye, University of Michigan
Multi-view Weak-label Learning based on Matrix Completion	Qiaoyu Tan, Southwest University; Guoxian Yu*, Southwest University, China; Carlotta Domeniconi, George Mason University; Jun Wang, Southwest University; Zili Zhang, Southwest University
Near-Optimal Mapping of Network States using Probes	Bijaya Adhikari*, Virginia Tech; Pavan Rangu, Virginia Tech; B. Aditya Prakash, Virginia Tech; Anil Vullikanti, Virginia Tech

Network Inference from Contrastive Groups Using Discriminative Structural Regularization	Ruihua Cheng*, New Jersey Institute of Technology; Zhi Wei, New Jersey Institute of Technology; Kai Zhang, Temple University
NLRR++: Scalable Subspace Clustering via Non-Convex Block Coordinate Descent	Jun Wang*, University of California, Davis; Cho-Jui Hsieh, UC Davis Department of Computer Science and Statistics
On Spectral Graph Embedding: a Non-backtracking Perspective and Graph Approximation	Fei Jiang*, Peking University; Lifang He, University of Illinois at Chicago; Yi Zheng, Peking University; Enqiang Zhu, Guangzhou University; Jin Xu, Peking University, China; Philip S Yu, UIC
One-Class Recommendation With Asymmetric Textual Feedback	Mengting Wan*, University of California, San Diego; Julian McAuley, University of California, San Diego
Online IT Ticket Automation Recommendation Using Hierarchical Multi-armed Bandit Algorithms	Qing Wang*, Florida International University; Tao Li, Florida International University; Larisa Shwartz, IBM T.J. Watson Research Center; Genady Ya. Grabarnik, St. John's University.
Online Truth Discovery on Time Series Data	Liuyi Yao*, SUNY Buffalo, USA; Lu Su, SUNY Buffalo; Qi Li, University of Illinois at Urbana-Champaign ; Yaliang Li, Baidu Research; Fenglong Ma, SUNY Buffalo; Jing Gao, University at Buffalo; Aidong Zhang, SUNY Buffalo
Outlier Detection over Distributed Trajectory Streams	Jiali Mao*, East China Normal University; Pengda Sun, East China Normal University; Cheqing Jin, East China Normal University; Aoying Zhou, East China Normal University
ParaSketch: Parallel Tensor Factorization via Sketching	Bo Yang*, University of Minnesota; Ahmed Zamzam, University of Minnesota; Nicholas Sidiropoulos, University of Minnesota
Personalized Ranking on Poisson Factorization	Li-Yen Kuo*, National Taiwan University; Chung-Kuang Chou, National Taiwan University; Ming-Syan Chen, National Taiwan University

Predicting Rich Drug-Drug Interactions via Biomedical Knowledge Graphs and Text Jointly Embedding	Meng Wang, Xi'an Jiaotong University; Yihe Chen, University of Toronto; Buyue Qian*, Xi'an Jiaotong University; Sen Wang, Griffith University; Guodong Long, University of Technology Sydney; Fei Wang, Cornell
Reconstructing a Cascade From Temporal Observations	Han Xiao*, Aalto University; Polina Rozenshtein, Aalto University; Nikolaj Tatti, Aalto University; Aristides Gionis, Aalto University
Revenue Maximization on the Multi-grade Product	Ya-Wen Teng, National Taiwan University; Chih-Hua Tai*, National Taipei University; Philip S Yu, UIC; Ming-Syan Chen, National Taiwan University
Robust Cost-Sensitive Learning for Recommendation with Implicit Feedback	PENG YANG*, KAUST; PEILIN ZHAO, Ant Finance Groups; Xin Gao, Kaust; YONG LIU, I2R
Robust Road Map Inference through Network Alignment of Trajectories	Rade Stanojevic, QCRI; Sofiane Abbar, Qatar Computing Research Institute; Saravanan Thirumuruganathan, QCRI; sanjay chawla*, University of Sydney; Fethi Filali, QMIC; Ahid Aleimat, QCRI
SamBaTen: Sampling-based Batch Incremental Tensor Decomposition	Ekta Gujral*, University of California, Riverside; Ravdeep Pasricha, University of California, Riverside; Evangelos Papalexakis, UC Riverside
Semi-supervised Embedding in Attributed Networks with Outliers	Jiongqian LIANG*, The Ohio state university; Peter Jacobs, The Ohio state university; Jiankai Sun, The Ohio state university; Srinivasan Parthasarathy, Ohio State University
SMACD: Semi-supervised Multi-Aspect Community Detection	Ekta Gujral*, University of California, Riverside; Evangelos Papalexakis, UC Riverside
Sparse Decomposition for Time Series Forecasting and Anomaly Detection	Sunav Choudhary, Adobe Research; Gaurush Hiranandani, UNIVERSITY OF ILLINOIS, URBANA-CH; Shiv Saini*, Adobe Research

STAPLE: Spatio-Temporal Precursor Learning for Event Forecasting	Yue Ning*, Virginia Tech; Rongrong Tao, Virginia Tech; Chandan Reddy, Virginia Tech; Huzefa Rangwala, George Mason University; James Starz, Lockheed Martin ATL. ; Naren Ramakrishnan, Virginia Tech
StreamCast: Fast and Online Mining of Power Grid Time Sequences	Bryan Hooi*, Carnegie Mellon University; Hyun Ah Song, Carnegie Mellon University; Amritanshu Pandey, Carnegie Mellon University; Marko Jereminov, Carnegie Mellon University; Larry Pileggi, Carnegie Mellon University; Christos Faloutsos, CMU, Pittsburgh
Streaming Tensor Factorization for Infinite Data Sources	Shaden Smith*, University of Minnesota; Kejun Huang, University of Minnesota; Nicholas Sidiropoulos, University of Virginia; George Karypis, University of Minnesota, Minneapolis
Strongly Hierarchical Factorization Machines and ANOVA Kernel Regression	Ruocheng Guo*, Arizona State University; Hamidreza Alvari, Arizona State University; Paulo Shakarian, Arizona State University
The Trustworthy Pal: Controlling the False Discovery Rate in Boolean Matrix Factorization	Sibylle Hess*, TU Dortmund; Nico Piatkowski, TU Dortmund; Katharina Morik, TU Dortmund
Topic Modeling based on Keywords and Context	Johannes Schneider*, University of Liechtenstein; Michail Vlachos, IBM Research
Toward Relational Learning with Misinformation	Liang Wu*, Arizona State University; Jundong Li, Arizona State University; Fred Morstatter, University of Southern California; Huan Liu, Arizona State University
Uncorrelated Patient Similarity Learning	Mengdi Huai*, State University of New York at Buffalo; Chenglin Miao, State University of New York at Buffalo; Qiuling Suo, State University of New York at Buffalo; Yaliang Li, Baidu Research; Jing Gao, University at Buffalo; Aidong Zhang, SUNY Buffalo
Unsupervised Neural Categorization for Scientific Publications	Keqian Li, UCSB; Hanwen Zha, UCSB; Yu Su*, UCSB; Xifeng Yan, UCSB

Who will Attend This Event Together? Event Attendance Prediction via Deep LSTM Networks	Yuxiao Dong, Microsoft Research; Baoxu Shi, University of Notre Dame; Ananthram Swami, Army Research Laboratory, Adelphi; Nitesh Chawla, Notre Dame
You Are How You Move: Linking Multiple User Identities From Massive Mobility Traces	Huandong Wang*, Tsinghua University; Yong Li, Tsinghua University; Gang Wang, Virginia Tech; Depeng Jin, Tsinghua University