

- HOME**
- ORGANIZATION** +
- TECHNICAL PROGRAM** +
  - > Program Overview
  - Keynote Speakers
  - Tutorials
  - Workshops
  - Conference Proceedings
- AWARDS**
- REGISTRATION**
- CALLS** +
- PAPER SUBMISSION** +
- TRAVEL & ACCOMMODATION** +
- VENUE** +
- CONTACTS**



Photograph courtesy of Jeju Tourism Organization

## Program Overview

### Program at a Glance

May 23, 2017 (Tuesday)				
08:00 ~ 08:30	Registration (1st Floor Lobby)			
	<b>Diamond</b>	<b>Crystal</b>	<b>Sapphire</b>	<b>Rose</b>
	Tutorial 1	Tutorial 2	Workshop	Workshop
08:30 ~ 10:00	Text Similarity Search within Homogenous and Heterogenous Document Collections	Advances in Recommender System	BDM	PAISI
10:00 ~ 10:30	Coffee Break			
10:30 ~ 12:00	Text Similarity Search within Homogenous and Heterogenous Document Collections	Advances in Recommender System	BDM	PAISI
12:00 ~ 13:30	Lunch			
13:30 ~ 15:30	Tutorial 3 Large Scale Tensor Analysis	Workshop DM-BPM	BDM	PAISI
15:30 ~ 16:00	Coffee Break			
16:00 ~ 18:00	Workshop MLSDA	DM-BPM		
18:00 ~ 20:00	Reception (Diamond Hall)			

May 24, 2017 (Wednesday)				
08:00 ~ 08:30	Registration (1st Floor Lobby)			
08:30 ~ 09:00	Conference Opening (Diamond Hall)			
09:00 ~ 10:00	Keynote speech: Sangkyun Cha (Diamond Hall)			
10:00 ~ 10:20	Coffee Break			
	<b>Diamond</b>	<b>Crystal</b>	<b>Sapphire</b>	<b>Rose</b>
	Research 1	Research 2	Research 3	Research 4
10:20 ~ 12:25	Classification and Deep Learning (I) (Chair: Tomoya Iwakura)	Social Network and Graph Mining (I) (Chair: Balaji Vasan Srinivasan)	Privacy-Preserving Mining and Security / Risk Applications (Chair: Hoai An Le Thi)	Spatio-Temporal and Sequential Data Mining (I) (Chair: Jaideep Srivastava)
12:25 ~ 14:00	Lunch			
14:00 ~ 15:45	Research 5 Classification and Deep Learning (II) (Chair: Sotirios Chatzis)	Research 6 Social Network and Graph Mining (II) (Chair: Yongqing Wang)	Research 7 Clustering and Anomaly Detection (Chair: Khalid Benabdeslem)	Research 8 Recommender Systems (Chair: Guandong Xu)
15:45 ~ 16:10	Coffee Break			
16:10 ~ 17:40	Research 9 Feature Selection (Chair: Min-Ling Zhang)	Research 10 Social Network and Graph Mining (III) (Chair: Grigorios Loukides)	Research 11 Text and Opinion Mining (I) (Chair: Younghoon Kim)	

May 25, 2017 (Thursday)				
08:30 ~ 09:00	Registration (1st Floor Lobby)			
09:00 ~ 10:00	Keynote speech: Rakesh Agrawal (Diamond Hall)			
10:00 ~ 10:20	Coffee Break			
	<b>Diamond</b>	<b>Crystal</b>	<b>Sapphire</b>	<b>Rose</b>
	Research 12	Research 13	Research 14	Research 15
10:20 ~ 12:25	Clustering and Matrix Factorization (Chair: Qiuyang Liu)	Social Network and Graph Mining (IV) (Chair: Jiuding Duan)	Spatio-Temporal and Sequential Data Mining (II) (Chair: Chulyun Kim)	Dynamic, Stream Data Mining (Chair: Naresh Manwani)

Hosted By





SEOUL  
NATIONAL  
UNIVERSITY

12:25 ~ 13:30	Lunch
13:30 ~ 18:00	Excursion
18:00 ~	Banquet

May 26, 2017 (Friday)				
09:00 ~ 10:00	Keynote speech: Dacheng Tao (Diamond Hall)			
10:00 ~ 10:20	Coffee Break			
	<b>Diamond</b>	<b>Crystal</b>	<b>Sapphire</b>	<b>Rose</b>
	Research 16	Research 17	Research 18	Research 19
10:20 ~ 12:25	Novel Models and Algorithms (I) (Chair: Khoat Than)	Text and Opinion Mining (II) (Chair: Manjira Sinha)	Behavioral Data Mining (Chair: Joonho Kwon)	Social Network and Graph Mining (V) (Chair: Gill Dobbie)
12:25 ~ 14:00	Lunch			
	Research 20	Research 21	Research 22	Research 23
14:00 ~ 15:15	Novel Models and Algorithms (II) (Chair: Philippe Fournier-Viger)	Graph Clustering and Community Detection (Chair: Uday Kiran Rage)	Dimensionality Reduction (Chair: Jerry Chun-Wei Lin)	Classification and Deep Learning (III) (Chair: Manoj Chinnakotla)
15:15 ~ 15:40	Closing Ceremony (Diamond Hall)			

## Research sessions

### Research 1: Classification and Deep Learning (I)

Chair: Tomoya Iwakura, Fujitsu Laboratories Ltd.

#### Convolutional Bi-Directional LSTM for Detecting Inappropriate Query Suggestions in Web Search

HARISH YENALA\*, IIIT HYDERABAD; Manoj Chinnakotla, Microsoft, India; Jay Goyal, Microsoft, India

#### A Fast and Easy Regression Technique for k-NN Classification Without Using Negative Pairs

Yutaro Shigeto, Nara Institute of Science and Technology; Masashi Shimbo\*, "Nara Institute of Science and Technology, Japan"; Yuji Matsumoto, Nara Institute of Science and Technology

#### Deep Network Regularization via Bayesian Inference of Synaptic Connectivity

Harris Partaourides, ; Sotirios Chatzis\*, Cyprus University of Technolog

#### Adaptive One-Class Support Vector Machine for Damage Detection in Structural Health Monitoring

Ali Anaissi\*, DATA61 | CSIRO; Khoa Nguyen Lu Dang, Data61, CSIRO, Australia; Samir Mustapha, American University of Beirut, Lebanon; Mehri Sadat Akki Alamdari, Data61, CSIRO, Australia; Ali Braytee, University of Technology Sydney, Australia; Yang Wang, yang.wang@data61.csiro.au; Fang Chen, Data61, CSIRO, Australia

#### A Classification model for Diverse and Noisy Labelers

Hao-en Sung, National Taiwan University; Cheng-Kuan Chen\*, National Taiwan University; Han Xiao, ; Shou-De Lin, NTU

### Research 2: Social Network and Graph Mining (I)

Chair: Balaji Vasan Srinivasan, Adobe Research

**Beyond Assortativity: Proclivity Index for Attributed Networks (ProNe)**

Reihaneh Rabbany\*, Carnegie Mellon University; Dhivya Eswaran, Carnegie Mellon University; Artur Dubrawski, Carnegie Mellon University; Christos Faloutsos, Carnegie Mellon University

**Hierarchical Mixed Neural Network for Joint Representation Learning of Social-Attribute Network**

Weizheng Chen\*, Peking University; Jinpeng Wang, Microsoft Research; Zhuoxuan Jiang, Peking University; Yan Zhang, Peking University; Xiaoming Li, Peking University

**Cost-effective viral marketing in the Latency Aware Independent Cascade model**

Robert Gwadera, Cardiff University; Grigorios Loukides\*, King's College London

**DSBPR: Dual Similarity Bayesian Personalized Ranking**

Longfei Shi\*, Bupt; Bin Wu, ; jing zheng, Beijing University of Posts and Telecommunications; Chuan Shi, "Beijing University of Posts and Telecommunications, China"; Mengxin Li, Bupt

**Usage Based Tag Enhancement of Images**

Balaji Srinivasan\*, Adobe Research; Noman Ahmed Sheikh, IIT Delhi; Roshan Kumar, IIT Kanpur; Saurabh Verma, IIT Rourkee; Niloy Ganguly, IIT Kharagpur

**Research 3: Privacy-Preserving Mining and Security / Risk Applications**

Chair: Hoai An Le Thi, University of Lorraine

**Partitioning-based mechanisms under personalized differential privacy**

Haoran Li\*, Emory University; Li Xiong, ; Xiaoqian Jiang, ; Zhanglong Ji,

**Efficient Cryptanalysis of Bloom Filters for Privacy-Preserving Record Linkage**

Peter Christen\*, "The Australian National University, Australia"; Rainer Schnell, City University London; Dinusha Vatsalan, The Australian National University; Thilna Ranbaduge, Australian National University

**Energy-Based Localized Anomaly Detection in Video Surveillance**

Hung Vu\*, Deakin University; Tu Nguyen, Deakin University; Anthony Travers, Defence Science and Technology Organization (DSTO), Australia; Svetha Venkatesh, Deakin University; Dinh Phung, "Deakin University, Australia"

**A fast Fourier transform-coupled machine learning-based ensemble model for disease risk prediction using a real-life dataset**

RAID LAFTA\*, University of southern Queensl; Ji Zhang, USQ; Xiaohui (Daniel) Tao, "The University of Southern Queensland, Australia"; Yan Li, USQ; Vincent S Tseng, National Chiao Tung University; Wessam Abbas, University of Southern Queensland; Yonglong Luo, School of Mathematics and Computer Science, Anhui

Normal University, China; Fulong Fulong Chen, School of Mathematics and Computer Science, Anhui Normal University, China

### **Assessing Death Risk of Patients with Cardiovascular Disease from Long-term Electrocardiogram Streams Summarization**

Shenda Hong, Peking University; Meng Wu, ; Jinbo Zhang, ; Hongyan Li\*,

## **Research 4: Spatio-Temporal and Sequential Data Mining (I)**

Chair: Jaideep Srivastava, Qatar Foundation

### **On the Robustness of Decision Tree Learning under Label Noise**

Aritra Ghosh\*, Microsoft; Naresh Manwani, IIT Hyderabad; P. S. Sastry, "Indian Institute of Science, Bangalore, India"

### **Relevance-based Evaluation Metrics for Multi-class Imbalanced Domains**

Paula Branco\*, INESC Tec/LIAAD; FCUP; Luís Torgo, ; Rita Ribeiro,

### **Location Prediction Through Activity Purpose: Integrating Temporal and Sequential Models**

Dongliang Liao\*, USTC; Yuan Zhong, Northeastern University, Boston, MA, USA; Jing Li, University of Science and Technology of China, Hefei, China

### **Modeling Temporal Behavior of Awards Effect on Viewership of Movies**

Basmah Altaf\*, KAUST; Faisal Kamiran, Information Technology University, Pakistan; Xiangliang Zhang, KAUST

### **A Physarum-inspired Ant Colony Optimization for Community Mining**

Mingxin Liang\*, Southwest University; Gao Chao, cgao@swu.edu.cn; Xianghua Li, ; Zili Zhang,

### **A Novel Diversity Measure for Understanding Movie Ranks in Movie Collaboration Networks**

Manqing Ma, Jilin University; Wei Pang, School of Natural and Computing Sciences, University of Aberdeen, Aberdeen, AB24; Lan Huang, ; Zhe Wang\*, College of Computer Science and Technology, Jilin University

### **Local-to-Global Unsupervised Anomaly Detection from Temporal Data**

Seif-eddine Benkabou\*, University Lyon 1 ; khalid Benabdeslem, university of Lyon 1; bruno Canitia, Lizeo Online Media Group

## **Research 5: Classification and Deep Learning (II)**

Chair: Sotirios Chatzis, Cyprus University of Technology

### **Automatic Discovery of Common and Idiosyncratic Latent Effects in Multilevel Regression**

Minhazul Islam Sk\*, University of Florida; Arunava Banerjee, "University of Florida, USA"

### **A Deep Neural Network for Pairwise Classification: Enabling Feature Conjunctions and Ensuring Symmetry**

Kyohei Atarashi\*, Hokkaido University; Satoshi Oyama, Hokkaido University; Masahito Kurihara, Hokkaido University; Kazune Furudo, NEC Solution Innovators, Ltd.

### **Feature Ranking of Large, Robust, and Weighted Clustering Result**

Mirka Saarela\*, University of Jyväskylä; Joonas Hämäläinen, ; Tommi Kärkkäinen,

### **Purchase Signatures of Retail Customers**

Clement Gautrais\*, University of Rennes 1; Peggy Cellier, INSA Rennes; Thomas Guyet, ; Rene Quiniou, ; Alexandre Termier,

### **Volatility Adaptive Classifier System**

Ruolin Jia, The University of Auckland; Yun Sing Koh\*, "The University of Auckland, New Zealand"; Gillian Dobbie, The University of Auckland

### **Distributed Representations for Words on Tables**

Minoru Yoshida\*, Tokushima University; Kazuyuki Matsumoto, ; Kenji Kita,

### **Link Prediction for Isolated Nodes in Heterogeneous Network by Topic-based Co-Clustering**

Katsufumi Tomobe\*, Keio University; Masafumi Oyamada, NEC corporation; Shinji Nakadai, NEC corporation

## **Research 6: Social Network and Graph Mining (II)**

Chair: Yongqing Wang, Institute of Computing Technology, Chinese Academy of Sciences

### **Edge Role Discovery via Higher-order Structures**

Nesreen Ahmed\*, Intel Labs; Ryan Rossi, Xerox PARC; ted Willke, Intel Labs; Rong Zhou, Palo Alto Research Center

### **Efficient bi-level variable selection and application to estimation of multiple covariance matrices**

Duy Nhat Phan\*, University of Lorraine; Hoai An Le Thi, University of Lorraine; Tao Pham Dinh, INSA-Rouen

### **Entity Set Expansion with Meta Path in Knowledge Graph**

Yuyan Zheng\*, Beijing University of Posts and Telecommunications; Chuan Shi, "Beijing University of Posts and Telecommunications, China"; xiaohuan Cao, Beijing University of Posts and Telecommunications; Xiaoli Li, ; Bin Wu,

### **Using Network Flows to Identify Users Sharing Extremist Content on Social Media**

Yifang Wei\*, Georgetown University; Lisa Singh, Georgetown University

### **MC3: A Multi-Class Consensus Classification Framework**

Tanmoy Chakraborty\*, University of Maryland, USA; Des Chandhok, University of Maryland, College Park, USA; V.S Subrahmanian, University of Maryland, College Park, USA

### **Monte Carlo Based Incremental PageRank on Evolving Graphs**

Qun Liao, Nankai University; Shuangshuang Jiang, ; Min Yu, ; Yulu Yang\*, ; Tao Li, Nankai University

### **Joint Weighted Nonnegative Matrix Factorization for Mining Attributed Graphs**

Zhichao Huang, Shenzhen Graduate School, Harbin Institute of Technology; Yunming Ye\*, ; Xutao Li, ; Feng Liu, Harbin Institute of Technology, Shenzhen; Huajie Chen, Harbin Institute of Technology, Shenzhen

### **Research 7: Clustering and Anomaly Detection**

Chair: Khalid Benabdeslem, University of Lyon1

### **A Targeted Retraining Scheme of Unsupervised Word Embeddings for Specific Supervised Tasks**

Pengda Qin, BUPT; Weiran Xu\*, Beijing University of Posts and Telecommunications; Jun Guo, Beijing University of Posts and Telecommunications

### **A Neural Joint Model for Extracting Bacteria and Their Locations**

Fei Li\*, Wuhan University; Meishan Zhang, School of Computer Science and Technology, Heilongjiang University, China; Guohong Fu, School of Computer Science and Technology, Heilongjiang University, China; Donghong Ji, School of Computer, Wuhan University, Wuhan, China

### **ADVANCED COMPUTATION OF SPARSE PRECISION MATRICES FOR BIG DATA**

Abdelkader Baggag\*, Hamad Bin Khalifa University; Halima Bensmail, Hamad Bin Khalifa University; Jaideep Srivastava,

### **Accurate Recognition of the Current Activity in the Presence of Multiple Activities**

Weihaio Cheng\*, The University of Melbourne; Sarah Erfani, The University of Melbourne; Rui Zhang, The University of Melbourne; Ramamohanarao Kotagiri, The University of Melbourne

### **Modeling Information Sharing Behavior on Q&A Forums**

Biru Cui\*, RIT; Shanchieh Yang, RIT; Christopher Homan, RIT



**Effective Multiclass Transfer For Hypothesis Transfer Learning**

Shuang Ao\*, Western University; Xiang Li, Western University; Charles Ling, University of Western Ontario

**Clustering Based on Dominant Set and Cluster Expansion**

Jian Hou\*, Bohai University; Weixue Liu,

**Research 8: Recommender Systems**

Chair: Guandong Xu, University of Technology Sydney

**Friend recommendation considering preference coverage in location-based social networks**

Fei Yu\*, Harbin Institute of Technology; Nan Che, Harbin University of Science and Technology; Zhijun Li, Harbin Institute of Technology; Kai Li, Harbin University of Science and Technology; Shouxu Jiang, Harbin Institute of Technology

**Contrast Pattern Based Collaborative Behavior Recommendation for Life Improvement**

Yan Chen\*, York University; Margot Yann, York University; Heidar Davoudi, ; Joy Choi, ; Aijun An, "York University, Canada"; Zhen Mei,

**Exploiting Location Significance and User Authority for Point-of-Interest Recommendation**

Yonghong Yu\*, Nanjing University; Hao Wang, Nanjing University; Yang Gao, "Nanjing University, China"; Shuanzhu Sun,

**Personalized Ranking Recommendation via Integrating Multiple Feedbacks**

Jian Liu, BUPT; Chuan Shi\*, "Beijing University of Posts and Telecommunications, China"; Binbin Hu, Beijing University of Posts and Telecommunications; Shenghua Liu, ICT, CAS; Philip Yu, UIC

**Fairness Aware Recommendations on Behance**

Natwar Modani\*, Adobe Research; Deepali Jain, Adobe Research; Ujjawal Soni, IIT, Madras; Gaurav Gupta, IIT, Roorkee; Palak Agarwal, IIT, Kanpur

**A Performance Evaluation Model for Taxi Cruising Path Recommendation System**

Huimin Lv\*, CUG; Zhongwen Luo, CUG; Fang Fang, CUG; Yishi Zhao, CUG; Yuanyuan Liu, CUG

**MaP2R: A Personalized Maximum Probability Route Recommendation Method Using GPS Trajectories**

Ge Cui, University of Calgary; Xin Wang\*, "University of Calgary, Canada"

**Research 9: Feature Selection**

Chair: Min-Ling Zhang, Southeast University

### **SNE: Signed Network Embedding**

Shuhan Yuan, Tongji University; Xintao Wu\*, University of Arkansas; Yang Xiang, Tongji University

### **mHUIMiner: A Fast High Utility Itemset Mining Algorithm for Sparse Datasets**

Yuxuan(Alex) Peng, University of Auckland; Yun Sing Koh\*, "The University of Auckland, New Zealand"; Patricia Riddle, "University of Auckland, New Zealand"

### **Partial tree-edit distance: a solution to the default class problem in pattern-based tree classification**

Maciej Piernik\*, Poznan University of Technology; Tadeusz Morzy, Poznan University of Technology

### **A Domain-Agnostic Approach to Spam-URL Detection via Redirects**

Heeyoung Kwon, Stony Brook University; Mirza Baig, Stony Brook University; Leman Akoglu\*, Carnegie Mellon University

### **Automatic and Effective Mining of Coevolving Online Activities**

Thinh Minh Do\*, Kumamoto University; Yasuko Matsubara, "Kumamoto University, Japan"; Yasushi Sakurai, Kumamoto University

### **Keeping priors in streaming Bayesian learning**

Anh Nguyen Duc\*, HUST; Linh Ngo Van, Hanoi University of Science and Technology; Anh Nguyen Kim, ; Khoat Than, "Hanoi University of Science and Technology, Vietnam"

## **Research 10: Social Network and Graph Mining (III)**

Chair: Grigorios Loukides, King's College London

### **Predicting Happiness State Based on Emotion Representative Mining in Online Social Networks**

Xiao Zhang, Nanjing University; Li Wenzhong\*, ; Hong Huang, ; Cam Tu Nguyen, ; Xu Chen, ; Xiaoliang Wang, ; Sanglu Lu,

### **Exploring Celebrities for Twitter User Geolocation Inference**

Mohammad Ebrahimi\*, University of New South Wales; Elaheh ShafieiBavani, University of New South Wales; Raymond Wong, University of New South Wales; Fang Chen, University of New South Wales

### **Do Rumors Diffuse Differently from Non-rumors? A Systematically Empirical Analysis in Sina Weibo for Rumor Identification**

Yahui Liu\*, Institute; Xiaolong Jin, ict; Huawei Shen, ICT,CAS



### **Investigating the Dynamics of Religious Conflicts by Mining Public Opinions on Social Media**

Swati Agarwal\*, IIIT Delhi; Ashish Sureka, ABB Corporate Research Center, Bangalore

### **Mining High-Utility Itemsets with both Positive and Negative Unit Profits from Uncertain Databases**

Wensheng Gan, Harbin Institute of Technology Shenzhen Graduate School; Jerry Chun-Wei Lin\*, "Harbin Institute of Technology Shenzhen, China"; Philippe Fournier-Viger, Harbin Institute of Technology Shenzhen Graduate School; Han-Chieh Chao, ; Vincent S Tseng, National Chiao Tung University

### **Sparse Stochastic Inference with Regularization**

Tung DOAN\*, SOKENDAI-Japan; Khoat Than, "Hanoi University of Science and Technology, Vietnam"

## **Research 11: Text and Opinion Mining (I)**

Chair: Younghoon Kim, Hanyang University

### **Efficient Training of Adaptive Regularization of Weight Vectors for Semi-structured Text**

Tomoya Iwakura\*, Fujitsu Laboratories Ltd.

### **Behavior-based Location Recommendation on Location-Based Social Networks**

Seyyed Mohammadreza Rahimi, University of Calgary; Xin Wang\*, "University of Calgary, Canada"; Behrouz Far, University of Calgary

### **Integer Linear Programming for Pattern Set Mining; with an Application to Tiling**

Abdelkader Ouali\*, University of Caen Normandy; Albrecht Zimmermann, University of Caen Normandy; Samir Loudni, University of Caen Normandy; Yahia Lebbah, University of Oran 1; Bruno Cremilleux, "Universite de Caen, France"; Patrice Boizumault, University of Caen Normandy; Lakhdar Loukil, University of Oran 1

### **Secured Privacy Preserving Data Aggregation with Semi-honest Servers**

Zhigang Lu\*, The University of Adelaide; Hong Shen, "Adelaide University, Australia"

### **Multi-task Representation Learning for Enhanced Emotion Categorization in Short Text**

Anirban Sen\*, ; Manjira Sinha, Xerox Research Centre India; Sandya Mannarswamy, Xerox Research Centre India; shourya Roy, Xerox Research Centre India

## **Research 12: Clustering and Matrix Factorization**

Chair: Qiuyang Liu, East China Normal University

### **Multi-View Matrix Completion for Clustering with Side Information**

Peng Zhao\*, Nanjing University; Yuan Jiang, Nanjing University; Zhi-Hua Zhou, Nanjing University

### **Weighted NMF-based Multiple Sparse Views Clustering for Web items**

Xiaolong Gong\*, Shanghai Jiao Tong University; Fuwei Wang, Shanghai Jiao Tong University; Linpeng Huang, Shanghai Jiao Tong University

### **Parallel Visual Assessment of Cluster Tendency on GPU**

Tao Meng\*, Tsinghua University; Bo Yuan,

### **Clustering Complex Data Represented as propositional formulas**

Abdelhamid Boudane\*, CRIL/Artois university; said Jabbour, CRIL/Artois university; Lakhdar Sais, CRIL/Artois university; Yakoub Salhi, CRIL/Artois university

### **Deep Bayesian Matrix Factorization**

Sotirios Chatzis\*, Cyprus University of Technolog

## **Research 13: Social Network and Graph Mining (IV)**

Chair: Jiuding Duan, Kyoto University

### **Exploring Check-in Data to Infer Social Ties in Location Based Social Networks**

Gunarto Sindoro Njoo\*, National Chiao Tung University; Min-Chia Kao, National Chiao Tung University; Kuo-Wei Hsu, National Chengchi University; Wen-Chih Peng, "National Chiao Tung University, Taiwan"

### **Scalable Twitter User Clustering Approach boosted by Personalized PageRank**

Anup Naik\*, Yahoo Japan Corporation; Hideyuki Maeda, ; Sumio Fujita, ; Vibhor Kanojia,

### **An Enhanced Markov Clustering Algorithm based on Physarum**

Mingxin Liang\*, Southwest University; Gao Chao, cgao@swu.edu.cn; Xianghua Li, ; Zili Zhang,

### **Exploiting Geographical Location for Team Formation in Social Coding Sites**

Yuqiang Han\*, Zhejiang University; Yao Wan, Zhejiang University; Liang Chen, Sun Yat-Sen University; Guandong Xu, "University of Technology Sydney, Australia"; Jian Wu, Zhejiang University

### **Weighted Simplicial Complex: A Novel Approach for Predicting Small Group Evolution**

Ankit Sharma\*, University of Minnesota; Terrence Moore, Army Research Lab; Ananthram Swami, Army Research Lab; Jaideep Srivastava,

### Research 14: Spatio-Temporal and Sequential Data Mining (II)

Chair: Chulyun Kim, Sookmyung Women's University

#### Mining Temporal Fluctuating Patterns

Shan-Yun Teng, National Cheng Kung University; Cheng-Kuan Ou, National Cheng Kung University; Kun-Ta Chuang\*, "National Cheng Kung University, Taiwan"

#### Maked Temporal Dynamics based on Recurrent Neural Network

Yongqing Wang\*, ICT, CAS; Shenghua Liu, ICT,CAS; Huawei Shen, ICT,CAS; Jinhua Gao, ICT, CAS; Xueqi Chen, ICT,CAS

#### Mining of Location-Based Social Networks for Spatio-temporal Social Influence

Yu-Ting Wen\*, National Chiao Tung University; Yi Yuan Fan, ; Wen-Chih Peng, "National Chiao Tung University, Taiwan"

#### Multi-perspective Hierarchical Dirichlet Process for Geographical Topic Modeling

Yuan He\*, Tongji University; cheng Wang, Tongji University; Changjun Jiang,

#### Enumerating Non-Redundant Association Rules Using Satisfiability

Abdelhamid Boudane\*, CRIL/Artois university; said Jabbour, CRIL/Artois university; Lakhdar Sais, CRIL/Artois university; Yakoub Salhi, CRIL/Artois university

### Research 15: Dynamic, Stream Data Mining

Chair: Naresh Manwani, International Institute of Information Technology

#### Mining Competitive Pairs Hidden in Co-location Patterns from Dynamic Spatial Databases

Junli Lu\*, Yunnan University; Lizhen Wang, "Yunnan University, China"; Yuan Fang, Yunnan University; momo Li, Yunnan Minzu University

#### Utility Aware Clustering for Publishing Transactional Data

Michael Bewong\*, University of South Australia; Jixue Liu, University of South Australia; Lin Liu, University of South Australia; Jiuyong Li, "University of South Australia, Australia"

#### Self-Tuning Filers — Overload Prediction and Preventive Tuning using Pruned Random Forest

Kumar Dheenadayalan, IIIT-Bangalore; Gopalakrishnan Srinivasaraghavan\*, IIIT-B; Muralidhara V.N., IIIT-B

**Web-Scale Personalized Real-Time Recommender System on Suumo**

Shiyingxue Li\*, Recruit Sumai Company; Shimpei Nomura, ; Yohei Kikuta, Freelance; Kazuma Arino,

**Modeling Contextual Changes In User Behaviour In Fashion e-Commerce**

Ashay Tamhane\*, Myntra; Sagar Arora, ; Deepak Warriar,

**Weighted Ensemble Classification of Multi-label Data Streams**

Lulu Wang, Beijing Jiaotong University; Hong Shen\*, School of Computer Science, University of Adelaide, Australia; Hui Tian, School of Electronics and Information Engineering, Beijing Jiaotong University,

**SS-FIM: Single Scan for Frequent Itemsets Mining in Transactional Databases**

Youcef Djenouri, UNIST; Marco Comuzzi\*, UNIST; Djamel Djenorui, CERIST Center Research

**Research 16: Novel Models and Algorithms (I)**

Chair: Khoat Than, Hanoi University of Science and Technology

**Improving One-class Collaborative Filtering with Manifold Regularization by Data-driven Feature Representation**

Yen-Chieh Lien\*, Academia Sinica; Pu-Jen Cheng, National Taiwan University

**Stable Bayesian Optimization**

Thanh Nguyen\*, Deakin University; Sunil Gupta, "Deakin University, Australia"; Santu Rana, "Deakin University, Australia"; Svetha Venkatesh, Deakin University

**An Exponential Time-Aware Recommendation Model for Mobile Notification Services**

Chenglin Zeng\*, Tsinghua University; Laizhong Cui, ; Zhi Wang,

**Discovering Periodic Patterns in Non-Uniform Temporal Databases**

Rage Kiran\*, The university of Tokyo; Venkatesh N, IIIT Hyderabad; Philippe Fournier-Viger, Harbin Institute of Technology Shenzhen Grad. School; Krishna Reddy, IIIT-Hyderabad; Masashi Toyoda, The University of Tokyo; Masaru Kitsuregawa, university of tokyo

**Discovering both Explicit and Implicit Similarities for Cross-Domain Recommendation**

Quan Do\*, UTS; Wei Liu, "University of Technology Sydney, Australia"; Fang Chen, Data61, CSIRO, Australia

**Research 17: Text and Opinion Mining (II)**

Chair: Manjira Sinha, Conduent Labs

**Fine-grained Emotion Detection in Contact Center Chat Utterances**

Shreshtha Mundra\*, Xerox; Anirban Sen, ; Manjira Sinha, Xerox Research Centre India; Sandya Mannarswamy, Xerox Research Centre India; Sandipan Dandapat, ; shourya Roy, Xerox Research Centre India

**Dependency-tree Based Convolutional Neural Networks for Aspect Term Extraction**

Hai Ye\*, Beihang University; Zichao Yan, Beihang University; Zhunchen Luo, China Defense Science and Technology Information Center; Wenhan Chao, Beihang University

**Topic Modeling over Short Texts by Incorporating Word Embeddings**

Jipeng Qiang\*, Hefei University of Technology; Ping Chen, University of Massachusetts Boston; Tong Wang, University of Massachusetts Boston; Xindong Wu,

**Mining Drug Properties for Decision Support in Dental Clinics**

Wee Goh\*, University of Southern Queensland; Xiaohui Tao, ; Ji Zhang, USQ; Jianming Yong,

**PURE: a Novel Tripartite Model for Review Sentiment Analysis and Recommendation**

Yue Xue\*, BUPT; Liutong Xu, Telecommunications Software Engineering Group, school of computer science, Beiji; hai Huang, Telecommunications Software Engineering Group, school of computer science, Beiji; Yao Cheng,

**Research 18: Behavioral Data Mining**

Chair: Joonho Kwon, Pusan National University

**Unsupervised Embedding for Latent Similarity by Modeling Heterogeneous MOOC Data**

Zhuoxuan Jiang\*, Peking University; Shanshan Feng, Nanyang Technological University; Weizheng Chen, Peking University; Guangtao Wang, University of Michigan; Xiaoming Li, Peking University

**Matrix-based Method for Inferring Variable Labels Using Outlines of Data in Data Jackets**

Teruaki Hayashi\*, The University of Tokyo; Yukio Ohsawa, The University of Tokyo

**Integrating Reviews into Personalized Ranking for Cold Start Recommendation**

Guang-Neng Hu, HKUST; Xin-Yu Dai\*, Nanjing University, China

**Taste or Addiction?: Using Play Logs to Infer Song Selection Motivation**

Kosetsu Tsukuda\*, National Institute of Advanced; Masataka Goto, National Institute of Advanced Industrial Science and Technology (AIST)

### **Understanding Drivers' Safety by Fusing Large Scale Vehicle Recorder Dataset and Heterogeneous Circumstantial Data**

Daisaku Yokoyama\*, The University of Tokyo; Masashi Toyoda, The University of Tokyo; Masaru Kitsuregawa, university of tokyo

### **Research 19: Social Network and Graph Mining (V)**

Chair: Gill Dobbie, The University of Auckland

#### **A P-LSTM Neural Network for Sentiment Classification**

Chi Lu, Beijing Institute of Technology; heyang Huang\*, Beijing University of Technology; Ping Jian, Beijing Institute of Technology; Dan Wang, Beijing Institute of Technology; Yi-Di Guo, Beijing Institute of Technology

#### **Learning what matters - Sampling interesting patterns**

Vladimir Dzyuba\*, KU Leuven; Matthijs van Leeuwen, Leiden University

#### **PNE: Label Embedding Enhanced Network Embedding**

Weizheng Chen\*, Peking University; Xianling Mao, Beijing Institute of Technology ; Xiangyu Li, Department of Automation, Tsinghua University; Yan Zhang, Peking University; Xiaoming Li, Peking University

#### **Improving Temporal Record Linkage using Regression Classification**

Yichen Hu\*, Australian National University; Qing Wang, Australian National University; Dinusha Vatsalan, The Australian National University; Peter Christen, "The Australian National University, Australia"

#### **Community Detection in Graph Streams by Pruning Zombie Nodes**

Yue Ding, Sun Yat-Sen university; Ling Huang, Beijing Institute of Technology; Chang-Dong Wang\*, Sun Yat-sen University; Dong Huang,

#### **Bilingual Lexicon Extraction from Comparable Corpora based on Closed Concepts Mining**

Mohamed Chebel\*, Research Laboratory LIPAH, Fac; Chiraz Latiri, ; Eric Gaussier, "LIG, France"

#### **Collective Geographical Embedding for Geolocating Social Network Users**

Fengjiao Wang\*, UIC; Chun-Ta Lu, ; Yongzhi Qu, Wuhan University of Technology; Philip Yu, UIC

### **Research 20: Novel Models and Algorithms (II)**

Chair: Philippe Fournier-Viger, Harbin Institute of Technology

#### **Mining recurrent patterns in a dynamic attributed graph**

ZHI CHENG, PPME; Frédéric Flouvat, PPME / UNC; Nazha SELMAOUI-FOLCHER\*, PPME / UNC



**Multi-view Regularized Gaussian Processes**

Qiuyang Liu\*, East China Normal University; Shiliang Sun, East China Normal University

**A Neural Network Model for Semi-supervised Review Aspect Identification**

Ying Ding\*, Singapore Management University; Changlong Yu, Singapore Management University; Jing Jiang, Singapore Management University

**Research 21: Graph Clustering and Community Detection**

Chair: Uday Kiran Rage, University of Tokyo

**Query-oriented Graph Clustering**

Li-Yen Kuo\*, National Taiwan University; Chung-Kuang Chou, National Taiwan University; Ming-Syan Chen, "National Taiwan University, Taiwan"

**CCCG: Clique Conversion Ratio Driven Clustering of Graphs**

Prathyush Sambaturu\*, IIIT Hyderabad; Kamalakar Karlapalem, IIIT Hyderabad

**Mining Cohesive Clusters with Interpretations in Labeled Graphs**

Hongxia Du\*, Xi'an Jiaotong University; Heli Sun, ; Liang He, ; Zhongbin Sun, ; Jianbin Huang, ; Hong Cheng, "The Chinese University of Hong Kong, China"

**A SAT-based Framework for Overlapping Community Detection in Networks**

said Jabbour, CRIL/Artois university; Nizar Mhadhbi, CRIL-CNRS UMR 8188; Badran Raddaoui\*, CRIL - CNRS UMR 8188; Lakhdar Sais, CRIL/Artois university

**Research 22: Dimensionality Reduction**

Chair: Jerry Chun-Wei Lin, Harbin Institute of Technology

**Denosing Autoencoder as an effective dimensionality reduction and clustering of text data**

Milad Leyli abadi\*, Paris Descartes University; Lazhar Labiod, Paris Descartes University; Mohamed Nadif, Paris Descartes University

**Gradable Adjective Embedding for Commonsense Knowledge**

Kyungjae Lee\*, Yonsei University; Seung-won Hwang, "Yonsei University, Korea"; Hyunsouk Cho, Postech

**Combining dimensionality reduction with random forests for multi-label classification under interactivity constraints**

Noureddine Yassine NAIR BENREKIA\*, Technicolor; Pascale KUNTZ, University of Nantes; Frank MEYER, Orange Labs

**A Generalized Model for Multidimensional Intransitivity**

Jiuding Duan\*, Kyoto University; Jiyi Li, Kyoto University; Yukino Baba, Kyoto University; Hisashi Kashima,

**Research 23: Classification and Deep Learning (III)**

Chair: Manoj Chinnakotla, Microsoft

**Predicting Destinations from Partial Trajectories Using Recurrent Neural Network**

Yuki Endo\*, NTT Service Evolution Laboratories; Kyosuke Nishida, NTT Service Evolution Laboratories; Hiroyuki Toda, NTT Service Evolution Laboratories; Hiroshi Sawada, NTT Service Evolution Laboratories

**Preventing Inadvertent Information Disclosures via Automatic Security Policies**

Tanya Goyal\*, Adobe Research; Sanket Mehta, Adobe research; Balaji Srinivasan, Adobe Research

**Personalized Deep Learning for Tag Recommendation**

Hanh T.H. Nguyen\*, University of Hildesheim; Martin Wistuba, ; Josif Grabocka, ; Lucas Drumond, ; Lars Schmidt-Thieme,

**Information-theoretic Non-redundant Subspace Clustering**

Nina Hubig\*, Frau; Claudia Plant, University Vienna

**Cost Matters: A New Example-Dependent Cost-Sensitive Logistic Regression Model**

Nikou Gunnemann\*, Technical University of Munich; Jürgen Pfeffer, Technical University of Munich

**Sponsored By**

PLATINUM

**NAVER**

**SK** holdings

C&amp;C

**AFOSR/  
AOARD**

**MIRHENG**
**NCSoft** 

**BIG DATA INSTITUTE**  
Seoul National University



GOLD



SILVER



PUBLICATION



Pacific Asia Knowledge Discovery and Data Mining Conference 2017 | CSS by Responsee Team

Privacy Policy & Terms of Use

사업자 번호 : 114-82-03170