

# October 7th 2017, Saturday

## Conference Opening

### Chairs:

- Welcome address:
- Opening address:
- Program introduction:

## Session Tutorial 1:

### Chair:

## Session Tutorial 2:

### Chair:

## Special sessions on Security and Privacy 1:

### Chair:

#### 1. A Study on Securing Software Defined Networks

*Raihan Ur Rasool, Hua Wang, Wajid Rafique, Jianming Yong, and Jinli Cao*

#### 2. A Verifiable Ranked Choice Internet Voting System

*Xuechao Yang, Xun Yi, Caspar Ryan, Ron van Schyndel, Fengling Han, Surya Nepal, and Andy Song*

#### 3. Privacy Preserving Location Recommendations

*Shahriar Badsha, Xun Yi, Ibrahim Khalil, Dongxi Liu, Surya Nepal, and Elisa Bertino*

#### 4. Botnet command and control architectures revisited: Tor Hidden services and Fluxing

*Marios Anagnostopoulos, Georgios Kambourakis, Panagiotis Drakatos, Michail Karavolos, Sarantis Kotsilitis, and David K. Y. Yau*

## Special sessions on Security and Privacy 2:

### Chair:

- 1. My Face is Mine: Fighting Unpermitted Tagging on Personal/Group Photos in Social Media**  
*Lihong Tang, Wanlun Ma, Sheng Wen, Marthie Grobler, Yang Xiang, and Wanlei Zhou*
- 2. Cryptographic Access Control in Electronic Health Record Systems: A Security Implication**  
*Pasupathy Vimalachandran, Hua Wang, Yanchun Zhang, Hongbo Kuang, and Guangping Zhuo*
- 3. SDN-based Dynamic Policy Specification and Enforcement for Provisioning Security as a Service in Cloud**  
*Udaya Tupakula, Vijay Varadharajan, and Kallol Krishna Karmakar*
- 4. Topic Detection with Locally Weighted Semi-supervised Collective Learning**  
*Ye Wang, Yong Quan, Bin Zhou, Yanchun Zhang, and Ming Peng (absent?)*

## **October 8th 2017, Sunday**

### **Morning Plenary Session**

#### **Keynote Talk 01 :**

**Speaker:** Prof. Beng Chin Ooi

### **Session 01: Microblog Data Analysis**

- 1. A Refined Method for Detecting Interpretable and Real-time Bursty Topic in Microblog Stream**  
*Tao Zhang, Bin Zhou, Jiuming Huang, Yan Jia, Bing Zhang, and Zhi Li*
- 2. Connecting Targets to Tweets: Semantic Attention-based Model for Target-specific Stance Detection**  
*Yiwei Zhou, Alexandra I. Cristea, and Lei Shi*
- 3. A Network Based Stratification Approach for Extracting Summary Tweets for News Articles**  
*Roshni Chakraborty, Maitry Bhavsar, Sourav Dandapat, and Joydeep*

*Chandra*

- 4. Interpreting Reputation through Frequent Named Entities in Twitter**  
**(short paper)**

*Nacéra Bennacer, Francesca Bugiotti, Moditha Hewasinghage, Suela Isaj,  
and Gianluca Quercini*

## **Session 02: Social Network Data Analysis**

- 1. Discovering and Tracking Active Online Social Groups**

*Md Musfique Anwar, Chengfei Liu, Jianxin Li, and Tarique Anwar*

- 2. Dynamic Relationship Building: Exploitation Versus Exploration on a Social Network**

*Bo Yan, Yang Chen, and Jiamou Liu*

- 3. Social Personalized Ranking Embedding For Next POI Recommendation**

*Yan Long, Pengpeng Zhao, Victor S. Sheng, Guanfeng Liu, Jiajie Xu, Jian Wu, and Zhiming Cui*

- 4. Assessment of Prediction Techniques: The Impact of Human Uncertainty**

*Kevin Jasberg and Sergej Sizov*

## **Session 03: Data mining**

- 1. Incremental Structural Clustering for Dynamic Networks**

*Yazhong Chen, Rong-Hua Li, Qiangqiang Dai, Zhenjun Li, Shaojie Qiao, and Rui Mao*

- 2. Extractive Summarization Via Overlap-based Optimized Picking**

*Gaokun Dai and Zhendong Niu*

- 3. Spatial Information Recognition on Web Documents using a Semi-Supervised Machine Learning Method**

*Hendi Lie, Richi Nayak, and Gordon Wyeth*

- 4. When Will A Repost Cascade Settle Down?**

*Chi Chen, HongLiang Tian, Jie Tang, and ChunXiao Xing*

## Session 04: Pattern Mining

- 1. Mining Co-Location Patterns with Dominant Features**  
*Yuan Fang, Lizhen Wang, Xiaoxuan Wang, and Lihua Zhou (absent?)*
- 2. Maximal Sub-Prevalent Co-location Patterns and Efficient Mining Algorithms**  
*Lizhen Wang, Xuguang Bao, Lihua Zhou, and Hongmei Chen (absent?)*
- 3. Overlapping Communities Meet Roles and Respective Behavioral Patterns in Networks with Node Attributes**  
*Gianni Costa and Riccardo Ortale*
- 4. Efficient Approximate Entity Matching Using Jaro-Winkler Distance (short paper)**  
*Yaoshu Wang, Jianbin Qin, and Wei Wang*

## Session 05: Cloud Computing

- 1. Long-term Multi-Objective Task Scheduling with Diff-Serv in Hybrid Clouds**  
*Puheng Zhang, Chuang Lin, Wenzhuo Li, and Xiao Ma*
- 2. Online Cost-aware Service Requests Scheduling in Hybrid Clouds for Cloud Bursting**  
*Yanhua Cao, Li Lu, Jiadi Yu, Shiyong Qian, Yanmin Zhu, Minglu Li, Jian Cao, Zhong Wang, Juan Li, and Guangtao Xue*
- 3. Adaptive Deployment of Service-Based Processes into Cloud Federations**  
*Chahrazed Labba, Nour Assy, Narjs Bellamine Ben Saoud, and Walid Gaaloul*
- 4. Towards a Public Cloud Services Registry (short paper)**  
*Ahmed Mohammed Ghamry, Asma Musabah Alkalbani, Vu Tran, Yi-Chan Tsai, My Ly Hoang, and Farookh Khadeer Hussain*

## Session 06: Query Processing

- 1. Location-based Top-k Term Querying over Sliding Window**  
*Ying Xu, Lisi Chen, Bin Yao, Shuo Shang, Shunzhi Zhu, Kai Zheng, and Fang Li*

**2. A Kernel-based Approach to Developing Adaptable and Reusable Sensor Retrieval Systems for the Web of Things**

*Nguyen Khoi Tran, Quan Z. Sheng, M. Ali Babar, and Lina Yao*

**3. Reliable Retrieval of Top-k Tags**

*Yong Xu, Reynold Cheng, and Yudian Zheng*

**4. Estimating Support Scores of Autism Communities in Large-Scale Web Information Systems (short paper)**

*Nguyen, Hung Nguyen, Svetha Venkatesh, and Dinh Phung (absent?)*

## **October 9th 2017, Monday**

### **Morning Plenary Session**

**Keynote Talk 02:**

**Speaker: by Prof. Lei Chen**

### **Session 07: Spatial and Temporal Data**

**1. DTRP: A Flexible Deep Framework For Travel Route Planning**

*Jie Xu, Chaozhuo Li, Senzhang Wang, Feiran Huang, Zhoujun Li, Yueying He, and Zhonghua Zhao*

**2. Taxi Route Recommendation Based on Urban Traffic Coulomb's Law**

*Zheng Lyu, Yongxuan Lai, Kuan-Ching Li, Minghong Liao, and Xing Gao*

**3. Efficient Order-sensitive Activity Trajectory Search**

*Kaiyang Guo, Rong-Hua Li, Shaojie Qiao, Zhenjun Li, Weipeng Zhang, and Minhua Lu*

**4. Time Series Classification by Modeling the Principal Shapes**

*Zhenguo Zhang, Yanlong Wen, Ying Zhang, and Xiaojie Yuan*

**5. Effective Caching of Shortest Travel-Time Paths for Web Mapping Mashup Systems**

*Detian Zhang, An Liu, Gangyong Jia, Fei Chen, Qing Li, and Jian Li*

## Session 08: Graph Theory

### 1. Discovering Hierarchical Subgraphs of K-Core-Truss

*Zhen-jun Li, Wei-Peng Zhang, Rong-Hua Li, Jun Guo, Xin Huang, and Rui Mao*

### 2. Efficient Subgraph Matching on Non-volatile Memory

*Yishu Shen and Zhaonian Zou*

### 3. Influenced Nodes Discovery in Temporal Contact Network

*Jinjing Huang, Tianqiao Lin, An Liu, Zhixu Li, Hongzhi Yin, and Lei Zhao*

### 4. Tracking Clustering Coefficient on Dynamic Graph via Incremental Random Walk (short paper)

*Qun Liao, Lei Sun, Yunpeng Yuan, and Yulu Yang*

## Session 09: Event Detection

### 1. Event Cubea Conceptual Framework for Event Modeling and Analysis

*Qing Li, Yun Ma, and Zhenguo Yang*

### 2. Cross-Domain and Cross-Modality Transfer Learning for Multi-Domain and Multi-Modality Event Detection (short paper)

*Zhenguo Yang, Min Cheng, Qing Li, Yukun Li, Zehang Lin, and Wenyin Liu*

### 3. Determining Repairing Sequence of Inconsistencies in Content-related Data

*Yuefeng Du, Derong Shen, Tiezheng Nie, Yue Kou, and Ge Yu*

## Session 10: Crowdsourcing and Crowdsensing

### 1. Real-time Target Tracking through Mobile Crowdsensing

*Jinyu Shi and Weijia Jia*

### 2. Crowdsourced Entity Alignment: A Decision Theory Based Approach

*Yan Zhuang, Guoliang Li, and Jianhua Feng*

### 3. A QoS-aware Online Incentive Mechanism for Mobile Crowd Sensing (short paper)

*Hui Cai, Yanmin Zhu, and Jiadi Yu*

### 4. Iterative Reduction Worker Filtering for Crowdsourced Label Aggregation (short paper)

*Jiyi Li and Hisashi Kashima*

#### **Session 11: Web data model**

1. **Semantic Web Datatype Inference: Towards Better RDF Matching**  
*Irvin Dongo, Yudith Cardinale, Firas Al-Khalil, and Richard Chbeir*
2. **Cross-Cultural Web Usability Model**  
*Rukshan Alexander, David Murray, and Nik Thompson (absent?)*
3. **How fair is your network to new and old objects? : A modelling of object selection in web based user-object networks (short paper)**  
*Anita Chandra, Himanshu Garg, and Abyayananda Maiti*
4. **Modeling Complementary Relationships of Cross-Category Products for Personal Ranking (short paper)**  
*Wenli Yu, Li Li, Fei Hu, Fan Li, and Jinjing Zhang*

#### **Session 12: Language Processing and Web Protocols**

1. **Eliminating Incorrect Cross-Language Links in Wikipedia (short paper)**  
*Nacéra Bennacer, Francesca Bugiotti, Jorge Galicia, Mariana Patricio, and Gianluca Quercini*
2. **Combining Local and Global Features in Supervised Word Sense Disambiguation**  
*Xue Lei, Yi Cai, Qing Li, Haoran Xie, Ho-fung Leung, and Fu Lee Wang*
3. **A Concurrent Interdependent Service Level Agreement Negotiation Protocol in Dynamic Service-oriented Computing Environments**  
*Lei Niu, Fenghui Ren, and Minjie Zhang*
4. **A New Static Web Caching Mechanism based on Mutual Dependency between Result Cache and Posting List Cache (short paper)**  
*Thanh Trinh, Dingming Wu, and Joshua Zhexue Huang*

**October 10th 2017, Tuesday**

### Keynote Talk 03:

Speaker: Prof. Jie Lu

### Session 13: Web-based Applications

1. **A Large-Scale Visual Check-In System for TV Content-Aware Web with Client-Side Video Analysis Offloading**

*Shuichi Kurabayashi and Hiroki Hanaoka*

2. **A Robust and Fast Reputation System for Online Rating Systems (short paper)**

*Mohsen Rezvani and Mojtaba Rezvani*

3. **The Automatic Development of SEO-friendly Single Page Applications Based on HIJAX Approach (short paper)**

*Siamak Hatami*

4. **Towards Effective web crawling - A theme weight and Bayesian Page Rank based approach (short paper)**

*Yan Tang, Lei Wei, Wangsong Wang, and Pengcheng Xuan*

### Session 14: Data Storage and Generator

1. **Efficient Multi-Version Storage Engine for Main Memory Data Store**

*Jinwei Guo, Bing Xiao, Peng Cai, Weining Qian, and Aoying Zhou*

2. **WeDGeM: A Domain-specific Evaluation Dataset Generator for Multilingual Entity Linking Systems (short paper)**

*Emrah Inan and Oguz Dikenelli*

3. **Extracting Web Content by Exploiting Multi-Category Characteristics**

*Qian Wang, Qing Yang, Jingwei Zhang, Rui Zhou, and Yanchun Zhang*

### Session 15: Security and Privacy

1. **PrivacySafer: Privacy Adaptation for HTML5 Web Applications**

*Georgia M. Kapitsaki and Theodoros Charalambous*

2. **Anonymity-based Privacy-preserving Task Assignment in Spatial Crowdsourcing**



*Yue Sun, An Liu, Zhixu Li, Guanfeng Liu, Lei Zhao, and Kai Zheng*

**3. Understanding Evasion Techniques that Abuse Differences among JavaScript Implementations**

*Yuta Takata, Mitsuaki Akiyama, Takeshi Yagi, and Takeo Hairu, Shigeki Goto*

**4. Mining Representative Patterns Under Differential Privacy (short paper)**

*Xiaofeng Ding, Long Chen, and Hai Jin*

**5. A Survey on Security as a Service (short paper)**

*Wenyuan Wang and Sira Yongchareon*

**Session 16: Sentiment Analysis**

**1. Exploring the Impact of Co-Experiencing Stressor Events for Teens Stress Forecasting**

*Qi Li, Liang Zhao, Yuanyuan Xue, Li Jin, and Ling Feng (absent?)*

**2. SGMR: Sentiment-aligned Generative Model for Reviews (short paper)**

*He Zou, Litian Yin, Dong Wang, and Yue Ding*

**3. An Ontology-Enhanced Hybrid Approach to Aspect-Based Sentiment Analysis (short paper)**

*Daan de Heij, Artiom Troyanovsky, Cynthia Yang, Milena Zychlinsky Schar, Kim Schouten, and Flavius Frasincar*

**4. DARE to Care: A Context-Aware Based Framework to Track Suicidal Ideation on Social Media (short paper)**

*Bilel Moulahi, J'érôme Az'e, and Sandra Bringay*

**Session 17: Recommender Systems 1**

**1. Local Top-N Recommendation via Rened Item-User Bi-Clustering**

*Yuheng Wang, Xiang Zhao, Yifan Chen, Wenjie Zhang, and Weidong Xiao*

**2. HOMMIT: A Sequential Recommendation for Modeling Interesttransferring via High-order Markov Model**

*Yang Xu, Xiaoguang Hong, Zhaohui Peng, Yupeng Hu, and Guang Yang*

**3. Modeling Implicit Communities in Recommender Systems**

*Xiao Lin and Zhaoquan Gu*

**4. Coordinating Disagreement and Satisfaction in Group Formation for Recommendation**

*Xiao Lin and Zhaoquan Gu*

**Session 18: Recommender Systems 2**

**1. Factorization Machines Leveraging Lightweight Linked Open Data-enabled Features for Top-N Recommendations**

*Guangyuan Piao and John G. Breslin*

**2. A Fine-grained Latent Aspects Model for Recommendation: Combining Each Rating with Its Associated Review**

*Xuehui Mao, Shizhong Yuan, Weimin Xu, and Daming Wei*

**3. Auxiliary Service Recommendation for Online Flight Booking (short paper)**

*Hongyu Lu, Jian Cao, Yudong Tan, and Quanwu Xiao*

**4. How does Fairness matter in Group Recommendation (short paper)**

*Xiao Lin and Zhaoquan Gu*

**5. Exploiting Users' Rating Behaviour to Enhance the Robustness of Social Recommendation (short paper)**

*Zizhu Zhang, Weiliang Zhao, Jian Yang, Surya Nepal, Cecile Paris, and Bing Li*