

CSoNet 2016

The 5th International Conference on Computational Social Networks

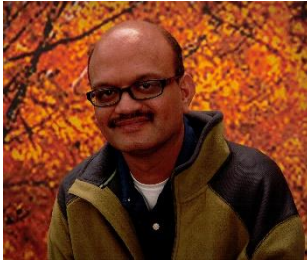
Program at a glance

- All events except Banquet will take place at Hotel Pullman Saigon Centre, 148 Tran Hung Dao Boulevard, District 1, 70000 Ho Chi Minh City, Vietnam. Registration at the 1stFloor, in front of Ballroom 2, Aug 2-4th, 2016 from 8:00AM.
- Banquet takes place at Sheraton Saigon Hotel & Towers, 88 Dong Khoi, District 1, Ho Chi Minh City, Vietnam from 18:00 - 20:00 PM.
- All sessions are oral sessions. Each paper is allocated 25 minutes limited to 20 minutes with 5 minutes for questions. Note that Presentation time is critical.

Tuesday, August 2 nd , 2016		
Time	Event	Venue
All day	On-site Registration	<i>Ballroom 2, 1stFloor</i>
08:30 – 08:40	Conference Opening and Welcome Remarks	
08:40 – 09:40	Keynote 1: Algorithmic aspects of the Lovasz Local Lemma <i>Professor Aravind Srinivasan; Chair:</i>	
09:40 – 10:10	Coffee Break	
10:10 – 11:50	Keynote 2: Multimodal Sensemaking using Social Media Data <i>Professor Ee-Peng Lim; Chair: Van Nam Huynh</i>	
11:50 – 13:30	Lunch	<i>3rd Floor</i>
13:30 – 15:10	Session 1: Network Structure and Evolution	<i>Ballroom 2, 1stFloor</i>
15:10 – 15:30	Coffee Break	
15:30 – 17:35	Session 2: Sentiment Analysis and Recommendation	
Wednesday, August 3 rd , 2016		
Time	Event	Venue
All day	On-site Registration	<i>Ballroom 2, 1stFloor</i>
08:40 – 09:40	Keynote 3: Dictionary Learning with few samples via matrix concentration <i>Professor Van Vu; Chair:</i>	
09:40 – 10:10	Coffee Break	
10:10 – 11:50	Session 3: Information Diffusion and Decision Making	
11:50 – 13:30	Lunch	<i>3rd Floor</i>
13:30 – 15:10	Session 4: Community Detection	<i>Ballroom 2, 1stFloor</i>
15:10 – 15:30	Coffee Break	
15:30 – 17:35	Session 5: Security and Privacy Management	
18:00 – 20:00	Banquet	<i>Sheraton Saigon Hotel & Towers</i>
Thursday, August 4 th , 2016		
Time	Event	Venue
08:30 – 10:10	Session 6: Social Media Mining I	<i>Boardroom, 2ndFloor</i>
10:00 – 10:30	Coffee Break	
10:30 – 12:10	Session 7: Social Media Mining II	
12:10 – 12:30	Conference Conclusions	

Keynotes

Aravind Srinivasan: Algorithmic aspects of the Lovasz Local Lemma



Aravind Srinivasan is a Professor with the Department of Computer Science and the Institute for Advanced Computer Studies at the University of Maryland, College Park. He received his undergraduate degree from the Indian Institute of Technology, Madras, and his Ph.D. from Cornell University, both in Computer Science. He was a postdoctoral researcher at the Institute for Advanced Study in Princeton and at DIMACS. He has also worked in industrial research, at Bell Labs. Aravind Srinivasan's research interests are in randomized algorithms, networking, social networks, and combinatorial optimization, as well as in the growing confluence of algorithms, networks, and randomness, in fields including the social Web, machine learning, public health, biology, and energy. He has published more than 100 papers in these areas, in journals including Nature, Journal of the ACM, IEEE/ACM Transactions on Networking, and the SIAM Journal on Computing. He is Editor-in-Chief of the ACM Transactions on Algorithms, Managing Editor for Theory of Computing, Associate Editor of Networks, and has served on the program committees of various conferences.

His papers have been (co-)recipients of the Best Paper/Best Student Paper Awards at various conferences in areas including algorithms, networking, and social networks. Dr. Srinivasan is a Fellow of three professional societies: ACM, AAAS and IEEE. He received a Distinguished Alumnus Award from his alma mater IIT Madras. He also received the Distinguished Faculty Award from the Board of Visitors of the College of Computing, Mathematical, and Natural Sciences (University of Maryland) in 2016. Aravind Srinivasan serves as Vice Chair of the IEEE Technical Committee on the Mathematical Foundations of Computing.

Abstract: *The Lovasz Local Lemma (LLL) is a powerful probabilistic tool in computer science and in combinatorics. Starting with the breakthrough of Moser and Tardos in 2009, there has been much progress in our understanding of the algorithmic aspects of the LLL. I will survey some of this work; prior knowledge of the LLL will not be necessary.*

Aravind Srinivasan

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Ee-Peng Lim: Multimodal Sensemaking using Social Media Data



Ee-Peng Lim is a professor at the School of Information Systems of Singapore Management University (SMU). His research interests include social network and web mining, information integration, and digital libraries. He is the Co-Director of the Living Analytics Research Center (LARC) jointly established by SMU and Carnegie Mellon University. He is also the Associate Editor of several journals including ACM Transactions on Information Systems (TOIS), ACM Transactions on the Web (TWeb), IEEE Transactions on Knowledge and Data Engineering (TKDE), Information Processing and Management (IPM), Social Network Analysis and Mining, Journal of Web Engineering (JWE), and IEEE Intelligent Systems. He serves on the Steering Committee of the International Conference on Asian Digital Libraries (ICADL), Pacific Asia Conference on Knowledge Discovery and Data Mining (PAKDD), and International Conference on Social Informatics (Socinfo).

Abstract: *As social media becomes an integral part of daily lives, it captures many interesting user-generated content and behaviour data that can be sensed and analysed. While social media companies use the insights learnt from such data to improve their user interface and experience, there are many other interesting insights that help us improve urban environment and public services. Social media data also offers a cheap and scalable approach to perform sensemaking on the urban environment. In this talk, we will showcase a few ongoing research projects in the Living Analytics Research Centre (LARC) which focus on multimodal sensemaking using social media data. The talk will share some new machine learning methods and systems to profile users, locations, and public transport services. The reasonably good accuracy of these methods also allow them to be deployed in urban application solutions.*

Ee-Peng Lim

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Van Vu: Dictionary Learning with few samples via matrix concentration



Van Vu obtained his PhD in Mathematics in 1998 at Yale under the direction of Laszlo Lovasz. He worked at the IAS (Princeton), Microsoft Research, UC San Diego and Rutgers Univ. before moving to Yale in 2011, where he holds the Percy Smith chair in mathematics. Vu's research interest includes combinatorics, probability, number theory and computer science. He was awarded the Polya prize in 2008 for his works on concentration of measure and the Fulkerson prize in 2012 for his works on random graphs. Dr Vu is a Sloan fellows and a fellows of the AMS. In 2007, he was the director of the Arithmetic Combinatorics program at the Institute for Advance Studies (Princeton). He was an invited speaker at the International Congress of Mathematicians (ICM) in 2014 and a Medallion speaker at the 8th World Congress in Statistics and Probability (2012).

Abstract: *Let A be an n by n matrix, X be an n by p matrix and $Y=AX$. A challenging and important problem in data analysis, motivated by dictionary learning and other practical problems, is to recover both A and X , given Y . Under normal circumstances, it is clear that this problem is underdetermined. However, in the case when X is sparse and random, Spielman, Wang and Wright showed that one can recover both A and X efficiently from Y with high probability, given that p (the number of samples) is sufficiently large compared to n . Their method works for p at least quadratic in n , and they conjectured that a linear dependence suffices (up to a logarithmic correction). In this talk, we discuss our recent solution of this conjecture. A key ingredient is a new random matrix concentration result, the proof of which is of independent interest, as it shows a simple way to modify the regular epsilon-net argument and avoid the standard union bound. Joint work with K. Luh (Yale).*

Van Vu

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Program in detail

Tuesday, August 2 nd , 2016	
Time	Event (Room: Ballroom 2, 1st Floor)
All day	On-site Registration
08:30 – 08:40	Conference Opening and Welcome Remarks
08:40 – 09:40	Keynote 1: Algorithmic aspects of the Lovasz Local Lemma <i>Professor Aravind Srinivasan; Chair:</i>
09:40 – 10:10	Coffee Break
10:10 – 11:50	Keynote 2: Multimodal Sensemaking using Social Media Data <i>Professor Ee-Peng Lim; Chair: Van Nam Huynh</i>
11:50 – 13:30	Lunch (3rd Floor)
Time	Event (Room: Ballroom 2, 1st Floor)
	Session 1: Network Structure and Evolution Chair: Professor Anurag Singh
13:30 – 13:55	Shortest Paths on Evolving Graphs <i>Yiming Zou, Gang Zeng, Yuyi Wang, Xingwu Liu, Xiaoming Sun, Jialin Zhang, and Qiang Li</i>
13:55 – 14:20	Analysis of a Reciprocal Network Using Google+: Structural Properties and Evolution <i>Braulio Dumba, Golshan Golnari, and Zhi-Li Zhang</i>
14:20 – 14:45	Comparison of Random Walk Based Techniques for Estimating Network Averages <i>Konstantin Avrachenkov, Vivek S. Borkar, Arun Kadavankandy, and Jithin K. Sreedharan</i>
14:45 – 15:10	Integrating Networks of Equipotent Nodes <i>Anastasia Moskvina and Jiamou Liu</i>
15:10 – 15:30	Coffee Break
Time	Event (Room: Ballroom 2, 1st Floor)
	Session 2: Sentiment Analysis and Recommendation Chair: Professor Xijin Tang
15:30 – 15:55	Integrating with Social Network to Enhance Recommender System Based-on Dempster-Shafer Theory <i>Van-Doan Nguyen and Van-Nam Huynh</i>
15:55 – 16:20	Exploiting Social Relations to Recommend Scientific Publications <i>Tin Huynh, Trac-Thuc Nguyen, and Hung-Nghiep Tran</i>
16:20 – 16:45	Trust Evaluation Based Friend Recommendation in Proximity Based Mobile Social Network <i>Fizza Abbas, Ubaidullah Rajput, Hasoo Eun, Dongsoo Ha, Taeseon Moon, Wenhui Jin, Hyunjun Back, Honglae Jo, Sul Bang, Seung-ho Ryu, and Heekuck Oh</i>
16:45 – 17:10	Fi-Senti: A Language-Independent Model for Figurative Sentiment Analysis <i>Hoang Long Nguyen, TrungDuc Nguyen, and Jason J. Jung</i>
17:10 – 17:35	Detection and Prediction of Users Attitude Based on Real-Time and Batch Sentiment Analysis of Facebook Comments <i>Hieu Tran and Maxim Shcherbakov</i>

Wednesday, August 3 rd , 2016	
Time	Event (Room: Ballroom 2, 1st Floor)
All day	On-site Registration
08:40 – 09:40	Keynote 3: Dictionary Learning with few samples via matrix concentration <i>Professor Van Vu; Chair:</i>
09:40 – 10:10	Coffee Break
Time	Event (Room: Ballroom 2, 1st Floor)
	Session 3: Information Diffusion and Decision Making Chair: Professor Jason J. Jung
10:10 – 10:35	Rumor Propagation Detection System in Social Network Services <i>Hoonji Yang, Jiaofei Zhong, Dongsoo Ha, and Heekuck Oh</i>
10:35 – 11:00	Time-Critical Viral Marketing Strategy with the Competition on Online Social Networks <i>Canh V. Pham, My T. Thai, Dung K. Ha, Dung Q. Ngo, and Huan X. Hoang</i>
11:00 – 11:25	Analysis of Viral Advertisement Re-Posting Activity in Social Media <i>Alexander Semenov, Alexander Nikolaev, Alexander Veremyev, Vladimir Boginski, and Eduardo L. Pasiliao</i>
11:25 – 11:50	Structure and Sequence of Decision Making in Financial Online Social Networks <i>Valeria Sadovykh and David Sundaram</i>
11:50 – 13:30	Lunch(3rd Floor)
Time	Event (Room: Ballroom 2, 1st Floor)
	Session 4: Security and Privacy Management Chair: Dr. Ngoc-Tu Huynh
13:30 – 13:55	Privacy-Preserving Ridesharing Recommendation in Geosocial Networks <i>Chengcheng Dai, Xingliang Yuan, and Cong Wang</i>
13:55 – 14:20	Complex Network Approach for Power Grids Vulnerability and Large Area Blackout <i>An T. Le and Ravi Sankar</i>
14:20 – 14:45	A Hybrid Trust Management Framework for Vehicular Social Networks <i>RasheedHussain, Waqas Nawaz, JooYoung Lee, Junggab Son, and Jung TaekSeo</i>
14:45 – 15:10	Distributed and Domain-Independent Identity Management for User Profiles in the SONIC Online Social Network Federation <i>Sebastian Göndör, Felix Beierle, SenanSharhan, and Axel Küpper</i>
15:10 – 15:30	Coffee Break
Time	Event (Room: Ballroom 2, 1st Floor)
	Session 5: Community Detection Chair: Dr. Jiamou Liu
15:30 – 15:55	Kirchhoff Centrality Measure for Collaboration Network <i>Vladimir V. Mazalov and Bulat T. Tsynguev</i>
15:55 – 16:20	Immunization Strategies Based on the Overlapping Nodes in Networks with Community Structure <i>Debayan Chakraborty, Anurag Singh, and HocineCherifi</i>
16:20 – 16:45	Improving Node Similarity for Discovering Community Structure in Complex Networks <i>Phuong N.H. Pham, Hien T. Nguyen, and Vaclav Snasel</i>
16:45 – 17:10	Detecting Overlapping Community in Social Networks Based on Fuzzy Membership Degree <i>Jiajia Rao, Hongwei Du, Xiaoting Yan, and Chuang Liu</i>

17:10 – 17:35	Identify Influential Spreaders in Online Social Networks Based on Social Meta Path and PageRank <i>Vang V. Le, Hien T. Nguyen, Vaclav Snasel, and Tran Trong Dao</i>
18:00 – 20:00	Banquet (Sheraton Saigon Hotel & Towers Address: 88 Dong Khoi, District 1, Ho Chi Minh City, Vietnam http://www.sheratonsaigon.com/)
Thursday, August 4th, 2016	
Time	Event (Room: Boardroom, 2nd Floor)
	Session 6: Social Media Mining I Chair: Dr. Tuan M. Nguyen
08:30 – 08:55	Aspect-Based Sentiment Analysis Using Word Embedding Restricted Boltzmann Machines <i>Bao-Dai Nguyen-Hoang, Quang-Vinh Ha, and Minh-QuocNghiem</i>
08:55 – 09:20	Architecting Crowd-Sourced Language Revitalisation Systems: Generalisation and Evaluation to Te Reo Māori and Vietnamese <i>AsfahaanMirza and David Sundaram</i>
09:20 – 09:45	Determining Aspect Ratings and Aspect Weights from Textual Reviews by Using Neural Network with Paragraph Vector Model <i>Duc-Hong Pham, Anh-Cuong Le, and Thi-Thanh-Tan Nguyen</i>
09:45 – 10:10	Proposal of a New Social Signal for Excluding Common Web Pages in Multiple Social Networking Services <i>Hiroyuki Hisamatsu and Tomoaki Tsugawa</i>
10:00 – 10:30	Coffee Break
Time	Event (Room: Boardroom, 2nd Floor)
	Session 7: Social Media Mining II Chair: Professor Anh-Cuong Le
10:30 – 10:55	Collective Online Clicking Pattern on BBS as Geometric Brown Motion <i>Zhenpeng Li and Xijin Tang</i>
10:55 – 11:20	Measuring Similarity for Short Texts on Social Media <i>Phuc H. Duong, Hien T. Nguyen, and Ngoc-Tu Huynh</i>
11:20 – 11:45	Stance Analysis for Debates on Traditional Chinese Medicine at Tianya Forum <i>Can Wang and Xijin Tang</i>
11:45 – 12:10	Lifelong Learning for Cross-Domain Vietnamese Sentiment Classification <i>Quang-Vinh Ha, Bao-Dai Nguyen-Hoang, and Minh-QuocNghiem</i>
12:10– 12:30	Conference Conclusions

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