**The Program of COCOA2015**

**First Day (December 18, 2015)**

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| **Sessions/Time** | **Titles of Talks / Speakers and Authors** |
| **Registration** | 07:30 - 09:00 |  |
| **Keynote** | 09:00 - 10:00 | Eunice Santos, Ph.D., Illinois Institute of Technology |
| **Coffee Break** | 10:00 - 10:15 |  |
| **Session 1**Classic Combinatorial Optimization (Chair: Wolfgang Bein) | 10:15 - 10:30 | Frank Gurski, Jochen Rethmann, Egon Wanke, *Directed Pathwidth and Palletizers* |
| 10:30 - 10:45 | Yishui Wang, Dachuan Xu, Donglei Du, Chenchen Wu, *Local Search Algorithms for $k$-median and $k$-Facility Location Problem with Linear Penalties* |
| 10:45 - 11:00 | Chao Xu, Jianer Chen, Jianxin Wang, *Improved MaxSAT Algorithms for Instances of Degree 3* |
| 11:00 - 11:15 | Jing Chen, Xin Han, Wolfgang Bein, Hingfung Ting, *Black And White Bin Packing Revisited* |
| 11:15 - 11:30 | Yicheng Xu, Dachuan Xu, Donglei Du, Chenchen Wu, *A (5.83+$\epsilon$)-approximation Algorithm for Universal Facility Location with Linear Penalty* |
| 11:30 - 11:45 | Hamed Fahimi, Claude-Guy Quimper, *Variants of Multi-Resource Scheduling Problems with Equal Processing Times* |
| 11:45 - 12:00 | Gopinath Mishra, SUBHRA MAZUMDAR, Arindam Pal, *Improved Algorithms for the Evacuation Route Planning Problem* |
| **Lunch** | 12:00 - 13:00 |  |
| **Session 2**Geometric Optimization (Chair: Alejandro Erickson) | 13:00 - 13:15 | Xuehou Tan, Qi Wei, *An improved on-line strategy for exploring unknown polygons* |
| 13:15 - 13:30 | Scott Summers, David Furcy, *Optimal self-assembly of finite shapes at temperature 1 in 3D* |
| 13:30 - 13:45 | Matias Korman, Sheung-Hung Poon, Marcel Roeloffzen, *Line Segment Covering of Cells in Arrangements* |
| 13:45 - 14:00 | Yi Xu, Jigen Peng, Yinfeng Xu, Binhai Zhu, *The Discrete and Mixed Minimax 2-Center Problem* |
| 14:00 - 14:15 | Binay Bhattacharya, Ante Custic, Akbar Rafiey, Arash Rafiey, Vladyslav Sokol, *Approximation Algorithms for Generalized MST and TSP in Grid Clusters* |
| 14:15 - 14:30 | Michael Khachay, Helen Zaytseva, *Polynomial time approximation scheme for single-depot Euclidean capacitated vehicle routing problem* |
| 14:30 - 14:45 | Supantha Pandit, Apurva Mudgal, *Covering, Hitting, Piercing, and Packing Rectangles Intersecting an Inclined Line* |
| **Coffee Break** | 14:45 - 15:00 |  |
| **Session 3**Network Optimization (Chair: Wolfgang Bein) | 15:00 - 15:15 | Yueshi Wu, Mihaela Cardei, *Distributed Algorithm for Mending Barrier Gaps via Sensor Rotation in Wireless Sensor Networks* |
| 15:15 - 15:30 | Alejandro Erickson, Abbas Kiasari, Javier Navaridas, Iain Stewart, *An efficient shortest-path routing algorithm in the data centre network DPillar* |
| 15:30 - 15:45 | Kejia Zhang, Qilong Han, Zhipeng Cai, Guisheng Yin, Junyu Lin, *Metric and Distributed On-line Algorithm for Minimizing Routing Interference in Wireless Sensor Networks* |
| 15:45 - 16:00 | Yaning Liu, Hongwei Du, Qiang Ye, *WDCS: A Weight-Based Distributed Coordinate System* |
| 16:00 - 16:15 | Gennaro Cordasco, Luisa Gargano, Marco Mecchia, Adele Rescigno, Ugo Vaccaro, *A Fast and Effective Heuristic for Discovering Small Target Sets in Social Networks* |
| 16:15 - 16:30 | Antonio Fernández Anta, Chryssis Georgiou, Elli Zavou, *Adaptive Scheduling over a Wireless Channel under Constrained Jamming* |
| 16:30 - 16:45 | Rongrong Zhu, Hongwei Du, Xiaohua Jia, Chuang Liu, *A Sensor Deployment Strategy in Bus-based Hybrid Ad-hoc Networks* |
| 16:45 - 17:00 | Cristina Bazgan, Janka Chlebikova, Thomas Pontoizeau, *New insight into 2-community structures in graphs with applications in social networks* |

**Second Day (December 19, 2015)**

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|  **Sessions/Chairs/Time** | **Titles of Talks / Speakers and Authors** |
| **Keynote** | 09:00 - 10:00 | My T. Thai, Ph.D., University of Florida |
| **Coffee Break** | 10:00 - 10:15 |  |
| **Session 4**Complexity and Game (Chair: Yong Zhang) | 10:15 - 10:30 | Haiyang wang, zhenhua duan, Cong Tian, *Symbolic Model Checking for Alternating Projection Temporal Logic* |
| 10:30 - 10:45 | Mathias Weller, Annie Chateau, Rodolphe Giroudeau, *On the complexity of scaffolding problems: from cliques to sparse graphs* |
| 10:45 - 11:00 | N. R. Aravind, R. B. Sandeep, Naveen Sivadasan, *Parameterized lower bound and NP-completeness of some H-free Edge Deletion problems* |
| 11:00 - 11:15 | Akaki Mamageishvili, Matus Mihalak, *Multicast Network Design Game on a Ring* |
| 11:15 - 11:30 | Dongjing Miao, Jianzhong Li, Xianmin Liu, Hong Gao, *Vertex Cover in Conflict Graphs: Complexity and A Near Optimal Approximation* |
| 11:30 - 11:45 | Andrzej Lingas, *Extreme witnesses and their applications* |
| 11:45 - 12:00 | Gustavo Dias, Leo Liberti, *Orbital independence in symmetric mathematical programs* |
| **Lunch** | 12:00 - 13:00 |  |
| **Session 5**Optimization in Graphs I (Chair: Ugo Vaccaro) | 13:00 - 13:15 | Danjun Huang, Ko-Wei Lih, Weifan Wang, *Legally $(\Delta+2)$-coloring bipartite* |
| 13:15 - 13:30 | Alka Bhushan, Gopalan Sajith, *An I/O Efficient Algorithm for Minimum Spanning Trees.* |
| 13:30 - 13:45 | Stephan Beyer, Markus Chimani, *The Influence of Preprocessing on Steiner Tree Approximations* |
| 13:45 - 14:00 | Xueliang Li, Yaoping Mao, Meiqin Wei, Ruihu Li, *Searching for (near) optimal codes* |
| 14:00 - 14:15 | Wenbin Chen, Lingxi Peng, Jianxiong Wang, Fufang Li, *Algorithms for the Densest Subgraph with at least k Vertices and with a Specified Subset* |
| 14:15 - 14:30 | Liying Kang, Erfang Shan, Jianjie Zhou, *The connected p-centdian problem on block graphs* |
| 14:30 - 14:45 | Wei Ding, Ke Qiu, *Approximating the Restricted 1-Center in Graphs* |
| **Coffee Break** | 14:45 - 15:00 |  |
| **Session 6**Optimization in Graphs II (Chair: Eunjeong Yi) | 15:00 - 15:15 | Yuichi Asahiro, Yuya Doi, Eiji Miyano, Hirotaka Shimizu, *Optimal Approximation Algorithms for Maximum Distance-Bounded Subgraph Problems* |
| 15:15 - 15:30 | Abhiruk Lahiri, Joydeep Mukherjee, C. R. Subramanian, *Maximum Independent Set on $B\_1$-VPG Graphs* |
| 15:30 - 15:45 | Minghui Jiang, *Trees, Paths, Stars, Caterpillars and Spiders* |
| 15:45 - 16:00 | Bogdan Armaselu, Ovidiu Daescu, *Online Minimum Bichromatic Separating Circle* |
| 16:00 - 16:15 | Wei Ding, Ke Qiu, *Dynamic Single-Source Shortest Paths in Erd\"{o}s-R\'{e}nyi Random Graphs* |
| 16:15 - 16:30 | Minghui Jiang, Ge Xia, Yong Zhang, *Edge-Disjoint Packing of Stars and Cycles* |
| 16:30 - 16:45 | Eunjeong Yi, *The disjunctive bondage number and the disjunctive total bondage number of graphs* |
| 16:45 - 17:00 | Jessica Enright, Kitty Meeks, *Deleting edges to restrict the size of an epidemic: a new application for treewidth* |
|  | 17:00-17:15 | Xiang Li, My T. Thai, *Adaptive Approximation Algorithms for Community Detection in Dynamic Networks* |

**Third Day (December 20, 2015)**

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| **Sessions/Chairs/Time** | **Titles of Talks / Speakers and Authors** |
| **Session 7**Applied Optimization (Chair: Wei Ding) | 08:30 - 08:45 | Zeqi Song, Hongwei Du, Hejiao Huang, Chuang Liu, *Indoor Localization via Candidate Fingerprints and Genetic Algorithm* |
| 08:45 - 09:00 | Dan Yang, Xiaohan He, Liang Song, Hejiao Huang, Hongwei Du, *A Hybrid Large Neighborhood Search for Dynamic Vehicle Routing Problem with Time Deadline* |
| 09:00 - 09:15 | Ahmad Mahmoody, Eli Upfal, Evgenios Kornaropoulos, *Optimizing Static and Adaptive Probing Schedules for Rapid Event Detection* |
| 09:15 - 09:30 | Zola Donovan, Vahan Mkrtchyan, K. Subramani, *On clustering without replication in combinatorial circuits* |
| 09:30 - 09:45 | Sonia Toubaline, Pierre-Louis Poirion, Claudia D'Ambrosio, Leo Liberti, *Observing the state of a smart grid using bilevel programming* |
| 09:45 - 10:00 | K. Alex Mills, R. Chandrasekaran, Neeraj Mittal, *On Replica Placement in High-Availability Storage under Correlated Failure* |
| **Coffee Break** | 10:00 - 10:15 |  |
| **Session 8**Miscellaneous (Chair: Michael Khachay) | 10:15 - 10:27 | Eranda Cela, Vladimir Deineko, Gerhard Woeginger, *Another easy QAP case with Robinsonian matrix: Is it easy to recognize?* |
| 10:27 - 10:39 | Tadao Takaoka, *Algebraic Theory on Shortest Paths for All Flows* |
| 10:39 - 10:51 | Yuqing Zhu, Chengxu Sun, Deying Li, Cong Chen, Yinfeng Xu, *Searching Graph Communities by Modularity Maximization via Convex Optimization* |
| 10:51 - 11:03 | Xin Feng, Yinfeng Xu, Feifeng Zheng, *Online scheduling for Electricity Cost in Smart Grid* |
| 11:03 - 11:15 | Feifeng Zheng, Longliang Qiao, *An online model of berth and quay crane integrated allocation in container terminals* |
| 11:15 - 11:27 | Hiromitsu Maji, Taisuke Izumi, *Listing Center Strings under the Edit Distance Metric* |
| 11:27 - 11:39 | Yasushi Kawase, Xin Han, Kazuhisa Makino, *Proportional Cost Buyback Problem with Weight Bounds* |
| 11:39 - 11:51 | Kelin Luo, Yinfeng Xu, *The Minimum Acceptable Violation Ranking of Alternatives from Voters' Ordinal Rankings* |
| 11:51 - 12:03 | Guillaume Escamocher, Barry O'Sullivan, *On the Minimal Constraint Satisfaction Problem: Complexity and Generation* |