Program

Day 1 (December 9) - ISAAC 2015		
	Session A *(Iris I)*	**Session B** *(Iris II)*
08:45-9:45	Invited Talk 1: **Soft Clustering: Models and Algorithms.** *Ravi Kannan* / Chair: Kazuhisa Makino *(Towers Ballroom)*	
9:45-10:05	Coffee Break	
10:05-11:45 **Session 1**	Computational Geometry I / Sang Won Bae	Data Structures / Amr Elmasry
	An Optimal Algorithm for Tiling the Plane with a Translated Polyomino. *Andrew Winslow*	On the Succinct Representation of Unlabeled Permutations. *Hicham El-Zein, Ian Munro and Siwei Yang*
	Adaptive point location in planar convex subdivisions. *Siu-Wing Cheng and Lau Man Kit*	How to Select the Top *k* Elements from Evolving Data?. *Qin Huang, Xingwu Liu, Xiaoming Sun and Jialin Zhang*
	Competitive Local Routing with Constraints. *Prosenjit Bose, Rolf Fagerberg, Andrè van Renssen and Sander Verdonschot*	Optimal search trees with 2-way comparisons. *Marek Chrobak, Mordecai J. Golin, J. Ian Munro and Neal E. Young*
	Navigating Weighted Regions with Scattered Skinny Tetrahedra. *Siu-Wing Cheng, Man Kwun Chiu, Jiongxin Jin and Antoine Vigneron*	Multidimensional Range Selection. *Timothy M. Chan and Gelin Zhou*
11:45-13:40	Lunch	
13:40-14:55 **Session 2**	Combinatorial Optimization and Approximation Algorithms I / Naonori Kakimura	Randomized Algorithms I / Rene Sitters
	On the Minimum Cost Range Assignment Problem. *Paz Carmi and Lilach Chaitman-Yerushalmi*	The secretary problem with a choice function. *Yasushi Kawase*
	On the Approximability of the Minimum Rainbow Subgraph Problem and Other Related Problems. *Sumedh Tirodkar and Sundar Vishwanathan*	The Benefit of Recombination in Noisy Evolutionary Search. *Tobias Friedrich, Timo Kötzing, Martin S. Krejca and Andrew M. Sutto*
	General Caching Is Hard: Even with Small Pages. *Lukáš Folwarczny and Jiří Sgall*	Algorithmic Learning for Steganography: Proper Learning of *k*-term DNF Formulas from Positive Samples. *Matthias Ernst, Maciej Liśkiewicz and Rüdiger Reischuk*
14:55-15:15	Coffee Break	
	Combinatorial Optimization and	

15:15-16:30 **Session 3**	Approximation Algorithms II / Kei Kimura	Randomized Algorithms II / Shuji Kijima
	Obtaining a Triangular Matrix by Independent Row-Column Permutations *Guillaume Fertin, Irena Rusu and Stéphane Vialette*	Heuristic time hierarchies via hierarchies for sampling distributions. *Dmitry Itsykson, Alexander Knop and Dmitry Sokolov*
	Many-to-one matchings with lower quotas: Algorithms and complexity. *Ashwin Arulselvan, Ágnes Cseh, Martin Groß, David Manlove and Jannik Matuschke*	Unbounded Discrepancy of Deterministic Random Walks on Grids. *Tobias Friedrich, Maximilian Katzmann and Anton Krohmer*
	Minimizing the Maximum Moving Cost of Interval Coverage. *Haitao Wang and Xiao Zhang*	Trading off Worst and Expected Cost in Decision Tree Problems. *Ferdinando Cicalese, Eduardo Laber and Aline Saettler*
Day 2 (December 10) - ISAAC 2015		
	Session A *(Iris I)*	**Session B** *(Iris II)*
08:45-9:45	Invited Talk 2: **Computing on Strategic Inputs.** *Constantinos Daskalakis* / Chair: Khaled Elbassioni *(Towers Ballroom)*	
9:45-10:05	Coffee Break	
10:05-11:45 **Session 4**	Graph Algorithms and FPT I / Michael Lampis	Computational Geometry II / Sang Won Bae
	Sliding Token on Bipartite Permutation Graphs. *Eli Fox-Epstein, Duc Hoang, Yota Otachi and Ryuhei Uehara*	Geometric Matching Algorithms for Two Realistic Terrains. *Sang Duk Yoon, Min-Gyu Kim, Wanbin Son and Hee-Kap Ahn*
	Output-Polynomial Enumeration on Graphs of Bounded (Local) Linear MIM-Width. *Mamadou Moustapha Kanté, Petr A. Golovach, Pinar Heggernes, Dieter Kratsch, Sigve H. Saether and Yngve Villanger*	Size-Dependent Tile Self-Assembly: Constant-Height Rectangles and Stability. *Sándor Fekete, Robert Schweller and Andrew Winslow*
	Minimum Degree up to Local Complementation: Bounds, Parameterized Complexity, and Exact Algorithms. *David Cattanéo and Simon Perdrix*	The 2-center problem in a simple polygon. *Eunjin Oh, Jean-Lou De Carufel and Hee-Kap Ahn*
	Exact and FPT algorithms for Max-Conflict Free Coloring in Hypergraphs. *Pradeesha Ashok, Sudeshna Kolay and Aditi Dudeja*	Choice is Hard. *Esther Arkin, Aritra Banik, Paz Carmi, Gui Citovsky, Matthew Katz, Joseph Mitchell and Marina Simakov*
11:45-13:15	Lunch	
	Graph Algorithms and FPT II / Tsan-sheng Hsu	Computational Geometry III / Der-Tsai Lee
	Fully Dynamic Betweenness Centrality. *Matteo Pontecorvi and Vijaya*	Minimizing the Diameter of a Spanning Tree for Imprecise Points. *Chih-Hung Liu*

	Ramachandran	*and Sandro Montanari*
13:15-14:55 **Session 5**	When Patrolmen Become Corrupted: Monitoring a Graph using Faulty Mobile Robots. *Jurek Czyzowicz, Leszek Gasieniec, Adrian Kosowski, Evangelos Kranakis, Danny Krizanc and Najmeh Taleb*	Model-based Classification of Trajectories. *Maike Buchin and Stef Sijben*
	Cops and Robbers on String Graphs. *Tomáš Gavenčiak, Przemyslaw Gordinowicz, Vít Jelínek, Pavel Klavík and Jan Kratochvil*	Linear-Time Algorithms for the Farthest-Segment Voronoi Diagram and Related Tree Structures. *Elena Khramtcova and Evanthia Papadopoulou*
	Min-Power Covering Problems. *Eric Angel, Evripidis Bampis, Vincent Chau and Alexander Kononov*	Unfolding Orthogonal Polyhedra with Linear Refinement. *Yi-Jun Chang and Hsu-Chun Yen*
14:55-15:15	Coffee Break	
15:15-16:30 **Session 6**	Combinatorial Optimization and Approximation Algorithms III / Rene Sitters	Randomized Algorithms III / Shuji Kijima
	Colored Non-Crossing Euclidean Steiner Forest. *Sergey Bereg, Krzysztof Fleszar, Philipp Kindermann, Sergey Pupyrev, Joachim Spoerhase and Alexander Wolff*	Generating Random Hyperbolic Graphs in Subquadratic Time. *Moritz von Looz, Henning Meyerhenke and Roman Prutkin*
	On a generalization of Nemhauser and Trotter's local optimization theorem. *Mingyu Xiao*	Provable Efficiency of Contraction Hierarchies with Randomized Preprocessing. *Stefan Funke and Sabine Storandt*
	Approximation Algorithms in the Successive Hitting Set Model. *Sabine Storandt*	Randomized Minmax Regret for Combinatorial Optimization Under Uncertainty. *Andrew Mastin, Patrick Jaillet and Sang Chin*
19:00-21:00	Banquet *(Towers Ballroom)*	

Day 3 (December 11) - ISAAC 2015

	Session A *(Iris I)*	**Session B** *(Iris II)*
08:45-9:45	Invited Talk 3: **Lower bounds on the size of linear programs.** *Thomas Rothvoss* / Chair: Kazuhisa Makino *(Towers Ballroom)*	
9:45-10:05	Coffee Break	
	Computational Geometry IV / Chan-Su Shin	Complexity and Quantum Computation I / Michal Koucky
	An Optimal Algorithm for Reconstructing Point Set Order Types from Radial Orderings. *Oswin Aichholzer, Vincent Kusters, Wolfgang Mulzer, Alexander Pilz and Manuel Wettstein*	Quantum Bit Commitment with Application in Quantum Zero-Knowledge Proof. *Jun Yan*

10:05-11:45 **Session 7**	Improved approximation for Frechet distance on *c*-packed curves matching conditional lower bounds. *Karl Bringmann and Marvin Künnemann*	Effectiveness of Structural Restrictions for Hybrid CSPs. *Vladimir Kolmogorov, Michal Rolinek and Rustem Takhanov*
	Computing the Gromov-Hausdorff Distance for Metric Trees. *Pankaj K. Agarwal, Kyle Fox, Abhinandan Nath, Anastasios Sidiropoulos and Yusu Wang*	Polynomial-time isomorphism test of groups that are tame extensions (Extended Abstract). *Joshua Grochow and Youming Qiao*
	The VC-Dimension of Visibility on the Boundary of a Simple Polygon. *Matt Gibson, Erik Krohn and Qing Wang*	Quantum Algorithm for Triangle Finding in Sparse Graphs. *Shogo Nakajima and Francois Le Gall*
11:45-13:15	Lunch	
13:15-14:55 **Session 8**	Graph Drawing & Planar Graphs / Seokhee Hong	Complexity and Quantum Computation II / Valia Mitsou
	On Hardness of the Joint Crossing Number. *Petr Hlineny and Gelasio Salazar*	A New Approximate Min-Max Theorem with Applications in Cryptography. *Maciej Skorski*
	An $O(n^{\varepsilon})$ Space and Polynomial Time Algorithm for Reachability in Directed Layered Planar Graphs. *Diptarka Chakraborty and Raghunath Tewari*	Give Me Another One!. *Mike Behrisch, Miki Hermann, Stefan Mengel and Gernot Salzer*
	Constant Query Time $(1+\varepsilon)$-Approximate Distance Oracle for Planar Graphs. *Qian-Ping Gu and Gengchun Xu*	On the Complexity of Computing Prime Tables. *Martin Farach-Colton and Meng-Tsung Tsai*
	Partitioning Graph Drawings and Triangulated Simple Polygons into Greedily Routable Regions. *Martin Nölenburg, Roman Prutkin and Ignaz Rutter*	Game values and computational complexity: An analysis via black-white combinatorial games. *Stephen Fenner, Daniel Grier, Jochen Messner, Luke Schaeffer and Thomas Thierauf*
14:55-15:15	Coffee Break	
15:15-16:55 **Session 9**	Online and Streaming Algorithms / Yasushi Kawase	String and DNA Algorithms / Michal Koucky
	Run Generation Revisited: What Goes Up May or May Not Come Down. *Michael A. Bender, Samuel McCauley, Andrew McGregor, Shikha Singh and Hoa T. Vuf*	An In-place Framework for Exact and Approximate Shortest Unique Substring Queries. *Wing-Kai Hon, Sharma V. Thankachan and Bojian Xu*
	Streaming Verification in Data Analysis. *Samira Daruki, Justin Thaler and Suresh Venkatasubramanian*	Inferring Strings from Full Abelian Periods. *Makoto Nishida, Tomohiro I, Shunsuke Inenaga, Hideo Bannai and Masayuki Takeda*

	All-Around Near-Optimal Solutions for the Online Bin Packing Problem. *Shahin Kamali and Alejandro Lopez-Ortiz*	Toehold DNA Languages are Regular. *Sebastian Brandt, Nicolas Mattia, Jochen Seidel and Roger Wattenhofer*
	Serving Online Requests with Mobile Servers. *Abdolhamid Ghodselahi and Fabian Kuhn*	