

# Program

	Sep. 12th (Sun.)	Sep. 13 <sup>th</sup> (Mon.)	Sep. 14 <sup>th</sup> (Tue.)	Sep. 15 <sup>th</sup> (Wed.)	Sep. 16 <sup>th</sup> (Thu.)	Sep. 17 <sup>th</sup> (Fri.)	Sep. 18 <sup>th</sup> (Sat.)
08:50-09:00		Opening Remarks				Tour	Informal Tour & Possibly Open Problems
09:00-10:00		Keynote Talk 1	Keynote Talk 3	Keynote Talk 4	Keynote Talk 5		
10:00-10:30		Group Photo Coffee Break	Coffee Break				
10:30-12:00		Keynote Talk 2	Session 3 Cryptogra- phy	Session 6 Algs/Data Structures/ Applications	Session 9 Game Theory		
12:00-14:00		Lunch					
14:00-15:00	Registration	Session 1 Complexity	Session 4 Property Testing	Session 7 Complexity	Session 10 Concentration and Applications		
15:00-15:30		Coffee Break					
15:30-16:30		Session 2 Complexity	Session 5 Learning	Session 8 Complexity	Session 11 Algs/Data Structures/App lications		
16:30-17:00			ITCS Showcase	Discussion	Discussion		
17:00-17:30					Closing Ceremony		
18:00-20:00		Reception			Banquet		

<b>Monday September 13, 2010</b>			
<b>TIME</b>	<b>ACTIVITIES</b>		<b>VENUE</b>
08:50-09:00	Opening Remarks		
09:00-10:00	Keynote Talk 1 Chair: Andrew Yao	Title: Some Results in Circuit Complexity <b>Johan Håstad</b> (Kungliga Tekniska högskolan)	Lecture Hall (2nd Floor), FIT Building
10:00-10:30	Group Photo + Coffee Break		Photo at Main Gate of FIT Building
10:30-11:30	Keynote Talk 2 Chair: Ryan O'Donnell	Title: Open problems in unconditional derandomization <b>Luca Trevisan</b> (UC Berkeley & Stanford)	Lecture Hall (2nd Floor), FIT Building
12:00-14:00	Lunch		Wenjin Hotel
14:00-15:00	Session 1 Chair: Andrew Wan	Title: The Lovász Local Lemma and Satisfiability <b>Robin Moser</b> (ETH Zurich) Title: Satisfiability Allows No Nontrivial Sparsification Unless The Polynomial-Time Hierarchy Collapses <b>Holger Dell</b> (Humboldt University of Berlin)	Room 1-315, FIT Building
15:00-15:30	Coffee Break		Lobby of Room 1-315, FIT Building
15:30-17:00	Session 2 Chair: Periklis Papakonstantinou	Title: Locally Testable Codes Analogues to the Unique Games Conjecture Do Not Exist <b>Gillat Kol</b> (Weizmann Institute of Science) Title: The Gaussian Surface Area and Noise Sensitivity of Degree-d Polynomial Threshold Functions <b>Daniel Kane</b> (Harvard University) Title: Improved Direct Product Theorems for Randomized Query Complexity <b>Andrew Drucker</b> (MIT)	Room 1-315, FIT Building
18:00-20:00	Reception		Ball Room (6th Floor), Wenjin Hotel

Tuesday September 14, 2010			
TIME	ACTIVITIES		VENUE
09:00-10:00	Keynote Talk 3 Chair: Luca Trevisan	Title: Invariance Principles in Theoretical Computer Science <b>Ryan O'Donnell</b> (Carnegie Mellon University)	Room 1-315, FIT Building
10:00-10:30	Coffee Break		Lobby of Room 1-315, FIT Building
10:30-12:00	Session 3 Chair: John Steinberger	Title: Overcoming the Hole in the Bucket: Public-Key Cryptography Resilient to Continual Memory Leakage <b>Zvika Brakerski</b> (Weizmann Institute of Science) Title: On the Computational Complexity of Coin Flipping <b>Hemanta Maji</b> (University of Illinois, Urbana-Champaign) Title: Recent Progress in Leakage-Resilient Cryptography <b>Daniel Wichs</b> (New York University)	Room 1-315, FIT Building
12:00-14:00	Lunch		Wenjin Hotel
14:00-15:00	Session 4 Chair: Kevin Matulef	Title: Testing Function Isomorphism <b>Eric Blais</b> (Carnegie Mellon University) Title: Toward A Canonical Form for Boolean Function Property Testing Algorithms <b>Dana Dachman-Soled</b> (Columbia University)	Room 1-315, FIT Building
15:00-15:30	Coffee Break		Lobby of Room 1-315, FIT Building
15:30-16:30	Session 5 Chair: Christophe Tartary	Title: Learning Parities with Structured Noise <b>Rong Ge</b> (Princeton University) Title: Potential-Based Agnostic Boosting <b>Varun Kanade</b> (Harvard University)	Room 1-315, FIT Building
16:30-17:30	ITCS Showcase		

Wednesday September 15, 2010			
TIME	ACTIVITIES		VENUE
09:00-10:00	Keynote Talk 4 Chair: Johan Håstad	Title: Constructive Proofs of Concentration Bounds <b>Russell Impagliazzo</b> (Institute for Advanced Study, Princeton and University of California, San Diego)	Room 1-315, FIT Building
10:00-10:30	Coffee Break		Lobby of Room 1-315, FIT Building
10:30-12:00	Session 6 Chair: Joshua Brody	Title: New Balanced Search Trees <b>Siddhartha Sen</b> (Princeton University) Title: External Memory Data Structures with $o(1)$ -I/O Updates <b>Qin Zhang</b> (University of Aarhus) Title: Vertex Sparsifiers and Oblivious Reductions <b>Ankur Moitra</b> (MIT)	Room 1-315, FIT Building
12:00-14:00	Lunch		Wenjin Hotel
14:00-15:00	Session 7 Chair: Iddo Tzameret	Title: Non-uniform Attacks Against One-way Functions and PRGs <b>Anindya De</b> (UC Berkeley) Title: An Invariance Principle for Polytopes <b>Raghu Meka</b> (UT Austin)	Room 1-315, FIT Building
15:00-15:30	Coffee Break		Lobby of Room 1-315, FIT Building
15:30-16:30	Session 8 Chair: Kevin Matulef	Title: A New Approach to Affine Extractors and Dispersers <b>Xin Li</b> (UT Austin) Title: Trevisan's Extractor in the Presence of Quantum Side Information <b>Thomas Vidick</b> (UC Berkeley)	Room 1-315, FIT Building
16:30-17:00	Discussion (open problems)		

Thursday September 16, 2010			
TIME	ACTIVITIES		VENUE
09:00-10:00	Keynote Talk 5 Chair: Maurice Herlihy	Title: Sparse Recovery Using Sparse Matrices (a tutorial) <b>Piotr Indyk</b> (MIT)	Room 1-315, FIT Building
10:00-10:30	Coffee Break		Lobby of Room 1-315, FIT Building
10:30-12:00	Session 9 Chair: Xiaoming Sun	Title: Towards Optimal Bayesian Algorithmic Mechanism Design <b>Zhiyi Huang</b> (University of Pennsylvania) Title: Single Parameter Combinatorial Auctions with Partially Public Valuations <b>Lei Wang</b> (Georgia Tech) Title: Rumor Spreading and Conductance <b>Silvio Lattanzi</b> (Sapienza University of Rome)	Room 1-315, FIT Building
12:00-14:00	Lunch		Wenjin Hotel
14:00-15:00	Session 10 Chair: Andrew Wan	Title: Matrix-valued Chernoff Bounds and Applications <b>Anastasios Zouzias</b> (University of Toronto) Title: Explicit Dimension Reduction and its Applications <b>Zohar Karnin</b> (Technion - Israel Institute of Technology)	Room 1-315, FIT Building
15:00-15:30	Coffee Break		Lobby of Room 1-315, FIT Building
15:30-16:30	Session 11 Chair: John Steinberger	Title: Fast Approximation Algorithms for Flow and Cut-based Problems in Undirected Graphs <b>Aleksander Madry</b> (MIT) Title: Achieving the Scaling Law of SNR-Monitoring in Dynamic Wireless Networks <b>Hongyi Yao</b> (Tsinghua University)	Room 1-315, FIT Building
16:30-17:00	Discussion		
17:00-17:30	Closing Ceremony		
18:00-20:00	Banquet		Quanjude Roast Duck Restaurant