

SESSION 9 (16:50-18:10)

A New Approach to the Sensitivity Conjecture

Justin Gilmer; Michal Koucký; Michael Saks

Standard Simplices and Pluralities are Not the Most Noise Stable

Steven Heilman; Elchanan Mossel; Joe Neeman

Communication with Imperfectly Shared Randomness

Clement Louis Canonne; Venkatesan Guruswami; Raghu Meka; Madhu Sudan

19:15 **Bus ride to Tel Aviv**

20:00 **Dinner at Casis restaurant**

TUESDAY January 13th 2015

SESSION 10 (9:00-10:45)

The Circuit-Input Game, Natural Proofs, and Testing Circuits With Data

Brynmor Chapman; Ryan Williams

Separation between Estimation and Approximation

Uriel Feige; Shlomo Jozeph

Deterministic Extractors for Additive Sources

Abhishek Bhowmick; Ariel Gabizon; Thai Hoang Le; David Zuckerman

It'll probably work out: improved list-decoding through random operations

Atri Rudra; Mary Wootters

10:45 **COFFEE**

SESSION 11 (11:10-12:55)

Verifiably Truthful Mechanisms

Simina Brânzei; Ariel D. Procaccia

Mechanism Design with Strategic Mediators

Moshe Babaioff; Moran Feldman; Moshe Tennenholtz

Accuracy for Sale: Aggregating Data with a Variance Constraint

Rachel Cummings; Katrina Ligett; Aaron Roth; Zhiwei Steven Wu; Juba Ziani

Better Outcomes from More Rationality

Jing Chen; Silvio Micali; Rafael Pass

12:55 **LUNCH**

SESSION 12 (14:15-16:00)

Direct Sum Testing

Roe David; Irit Dinur; Elazar Goldenberg; Guy Kindler; Igor Shinkar

On Sample-Based Testers

Oded Goldreich; Dana Ron

Ip Testing and Learning of Discrete Distributions

Bo Waggoner

Sunflowers and Testing Triangle-Freeness of Functions

Ishay Haviv; Ning Xie

16:00 **COFFEE**

SESSION 13 (16:25-17:45)

Sketching Cuts in Graphs and Hypergraphs

Dmitry Kogan; Robert Krauthgamer

Very sparse additive spanners and emulators

Greg Bodwin; Virginia Vassilevska Williams

Any monotone property of k -uniform hypergraphs is weakly evasive

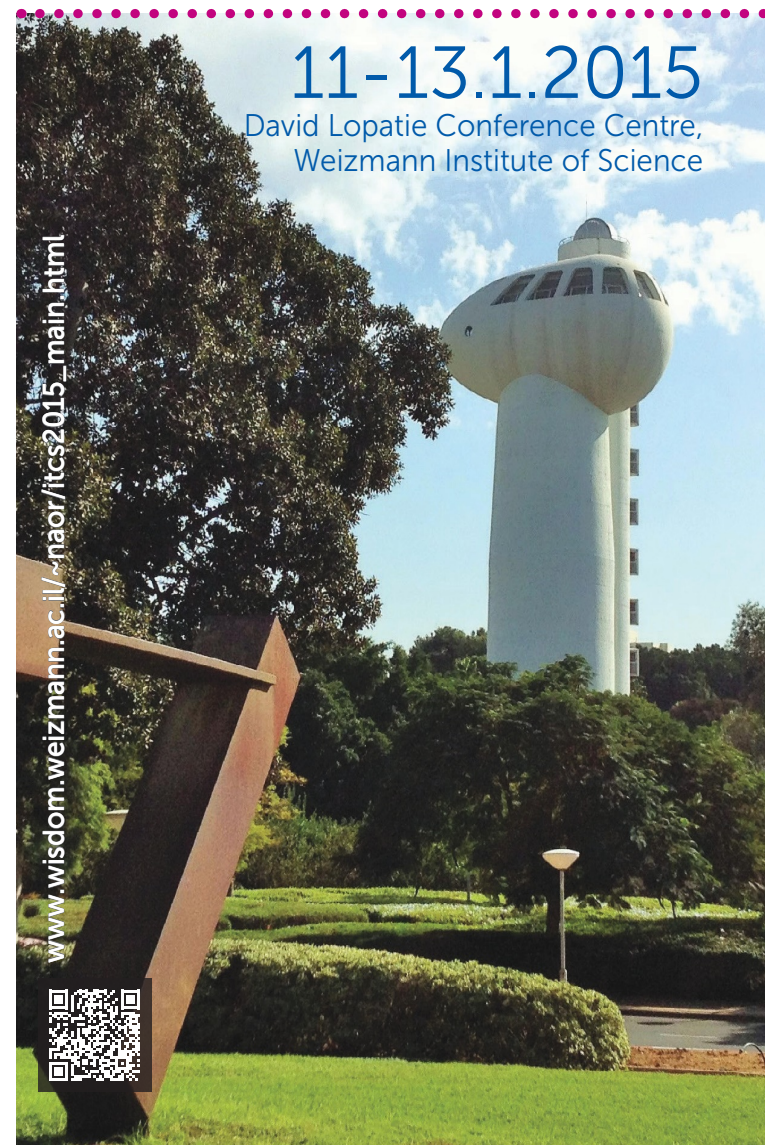
Timothy J. F. Black

ITCS 2015
Innovations in Theoretical
Computer Science

11-13.1.2015

David Lopatie Conference Centre,
Weizmann Institute of Science

www.wisdom.weizmann.ac.il/~naor/itcs2015_main.html



SUNDAY January 11th 2015

SESSION 1 (9:00-10:45)

Interactive Coding for Multiparty Protocols

Abhishek Jain; Yael Tauman Kalai; Allison Lewko

Maximal Noise in Interactive Communication over Erasure Channels and Channels with Feedback

Klim Efremenko; Ran Gelles; Bernhard Haeupler

Simulating Noisy Channel Interaction

Mark Braverman; Jieming Mao

Deterministic Rateless Codes for BSC

Benny Applebaum; Liron David; Guy Even

10:45 COFFEE

SESSION 2 (11:10-12:55)

Homophily and the Glass Ceiling Effect in Social Networks

Chen Avin; Barbara Keller; Zvi Lotker; Claire Mathieu; David Peleg; Yvonne-Anne Pignolet

Dynamic Models of Reputation and Competition in Job-Market Matching

Jon Kleinberg; Sigal Oren

Voting with Coarse Beliefs

Samantha Leung; Edward Lui; Rafael Pass

Complex Contagions in Kleinberg's Small World Model

Roozbeh Ebrahimi; Jie Gao; Golnaz Ghasemiefteh; Grant Schoenebeck

12:55 LUNCH

SESSION 3 (14:15-16:00)

Natural Selection as an Inhibitor of Genetic Diversity

Ruta Mehta; Ioannis Panageas; Georgios Piliouras

Fractal structures in Adversarial Prediction

Rina Panigrahy; Preyas Papat

On Learning Mixture Models for Permutations

Flavio Chierichetti; Anirban Dasgupta; Ravi Kumar; Silvio Lattanzi

Restricted Distribution Automatizability in PAC-Semantics

Brendan Juba

16:00 COFFEE

SESSION 4 (16:25-18:10)

An entangled-prover interactive proof system for the local Hamiltonian problem

Joseph Fitzsimons; Thomas Vidick

Zero-Information Protocols and Unambiguity in Arthur-Merlin Communication

Mika Goos; Toniann Pitassi; Thomas Watson

Information Causality, Szemerédi-Trotter and algebraic variants of CHSH

Mohammad Bavarian; Peter W. Shor

Non-Interactive Proofs of Proximity

Tom Gur; Ron D Rothblum

18:10 Dinner

19:30-21:30 Meet the new Innovators

MONDAY January 12th 2015

SESSION 5 (9:00-10:45)

Arithmetic Cryptography

Benny Applebaum; Jonathan Avron; Christina Brzuska

The Hidden Communication Graph Model:

Communication Locality and Optimal Resiliency with Adaptive Faults

Nishanth Chandran; Wutichai Chongchitmate; Juan A. Garay; Shafi Goldwasser; Rafail Ostrovsky; Vassilis Zikas

On The Communication Complexity of Secure Function Evaluation with Long Output

Pavel Hubacek; Daniel Wichs

Privacy-Preserving Public Information for Sequential Games

Avrim Blum; Jamie Morgenstern; Ankit Sharma; Adam Smith
10:45 COFFEE

SESSION 6 (11:10-12:55)

Uniform Sampling for Matrix Approximation

Michael B. Cohen; Yin Tat Lee; Cameron Musco; Christopher Musco; Richard Peng; Aaron Sidford

Relax, no need to round: integrality of clustering formulations

Pranjal Awasthi; Afonso S. Bandeira; Moses Charikar; Ravishankar Krishnaswamy; Soledad Villar; Rachel Ward

On Multiplicative Weight Updates for Concave and Submodular Function Maximization

Chandra Chekuri; T.S. Jayram; Jan Vondrak

Robust Hierarchical k -Center Clustering

Silvio Lattanzi; Stefano Leonardi; Vahab Mirrokni; Ilya Razenshteyn

12:55 LUNCH

SESSION 7 (14:00-15:00)

Craig Gentry - Keynote Speaker

15:00 COFFEE

(15:20-16:40) SESSION 8

The Computational Benefit of Correlated Instances

Irit Dinur; Shafi Goldwasser; Huijia Lin

Why are images smooth?

Uriel Feige

A Physically Universal Cellular Automaton

Luke Schaeffer

16:40 BRIEF BREAK