CONFERENCE INFORMATION

All events will take place in the Hyatt Regency Bethesda. The meeting rooms are located on the Ballroom Level of the Hotel (two levels below the main lobby). Coffee breaks and the continental breakfasts will be served in the Ballroom Foyer, on the Ballroom Level. The Cartier/Tiffany rooms will used as a breakout area.

REGISTRATION DESK

The registration desk will be in the Haverford Foyer, two levels below the main lobby. It will be open Saturday from 6:00pm-8:00pm and Sun-Tue from 7:30am-6:00pm.

INTERNET ACCESS

Wireless internet access will be available in the Cartier/Tiffany room, the Ballroom Foyer, and the Crystal Ballroom (all on the Ballroom Level). Information on accessing the wireless will be available at the registration desk.

LUNCHES

Due to space limitations, lunches will be split between two rooms. Attendees may go to either room.

- Concours Terrace, located one level above the main lobby in the center of the main atrium of the Hotel.
- Diplomat/Ambassador rooms, located on the Conference Level, one level above the ballroom.

CONFERENCE PROGRAM

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00am-6:00pm</td>
<td>Les Valiant 60th Birthday Celebration</td>
<td>(Embassy/Chesapeake Suites)</td>
</tr>
<tr>
<td>6:00pm-8:00pm</td>
<td>— Registration and Welcome Reception —</td>
<td>(Registration: Haverford Foyer)</td>
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<tr>
<td></td>
<td></td>
<td>(Reception: Concours Terrace)</td>
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<tr>
<td>Time</td>
<td>Session</td>
<td>Location</td>
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<tr>
<td>7:30-8:30</td>
<td>Registration and Continental Breakfast</td>
<td>Ballroom Foyer</td>
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<tr>
<td>8:30-8:50</td>
<td>Message Passing Algorithms and Improved LP Decoding</td>
<td>Waterford/Lalique</td>
</tr>
<tr>
<td>8:55-9:15</td>
<td>List Decoding Tensor Products and Interleaved codes</td>
<td>Waterford/Lalique</td>
</tr>
<tr>
<td>9:20-9:40</td>
<td>Artin Automorphisms, Cyclotomic Function Fields, and Folded List-decodable Codes — Venkatesan Guruswami</td>
<td>Haverford/Baccarat</td>
</tr>
<tr>
<td>9:45-10:05</td>
<td>A Deterministic Reduction for the Gap Minimum Distance Problem</td>
<td>Waterford/Lalique</td>
</tr>
<tr>
<td>10:10-11:00</td>
<td>Algorithms and Data Structures</td>
<td>Haverford/Baccarat</td>
</tr>
<tr>
<td>11:00-11:20</td>
<td>An Efficient Algorithm for Partial Order Production</td>
<td>Waterford/Lalique</td>
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<tr>
<td>11:25-11:45</td>
<td>A Nearly Optimal Oracle for Avoiding Failed Vertices and Edges</td>
<td>Waterford/Lalique</td>
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<tr>
<td>11:50-12:10</td>
<td>Distributed $(\Delta+1)$-Coloring in Linear (in $\Delta$) Time</td>
<td>Haverford/Baccarat</td>
</tr>
<tr>
<td>12:15-12:35</td>
<td>Near-Perfect Load Balancing by Randomized Rounding</td>
<td>Haverford/Baccarat</td>
</tr>
<tr>
<td>12:40-2:10</td>
<td>Lunch</td>
<td>(Concours Terrace and Diplomat/Ambassador)</td>
</tr>
<tr>
<td>2:10-3:20</td>
<td>Athena Lecture</td>
<td>Haverford/Baccarat</td>
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<tr>
<td>3:20-3:50</td>
<td>Coffee break</td>
<td>Haverford/Baccarat</td>
</tr>
<tr>
<td>3:50-4:10</td>
<td>Fully Homomorphic Encryption Using Ideal Lattices</td>
<td>Waterford/Lalique</td>
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<tr>
<td>4:40-5:00</td>
<td>Non-Malleability Amplification</td>
<td>Waterford/Lalique</td>
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<tr>
<td>5:05-5:25</td>
<td>3-Query Locally Decodable Codes of Subexponential Length</td>
<td>Waterford/Lalique</td>
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<tr>
<td>8:30-10:00</td>
<td>Business Meeting</td>
<td>Haverford/Baccarat</td>
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<tr>
<td>10:00-11:00</td>
<td>Property Testing</td>
<td>Waterford/Lalique</td>
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<td>Direct Product Testing</td>
<td>Waterford/Lalique</td>
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<td>On Proximity Oblivious Testing</td>
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<td>Testing Juntas Nearly Optimally</td>
<td>Waterford/Lalique</td>
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<td>12:15-12:35</td>
<td>Green’s Conjecture and Testing Linear-Invariant Properties</td>
<td>Waterford/Lalique</td>
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<tr>
<td>3:50-4:10</td>
<td>Approximating Edit Distance in Near-Linear Time</td>
<td>Waterford/Lalique</td>
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<tr>
<td>4:15-4:35</td>
<td>Numerical Linear Algebra in the Streaming Model</td>
<td>Waterford/Lalique</td>
</tr>
<tr>
<td>4:40-5:00</td>
<td>A Fast and Efficient Algorithm for Low-rank Approximation of a Matrix</td>
<td>Waterford/Lalique</td>
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<tr>
<td>5:05-5:25</td>
<td>An Improved Constant-Time Approximation Algorithm for Maximum Matchings</td>
<td>Waterford/Lalique</td>
</tr>
<tr>
<td>8:30-10:00</td>
<td>Business Meeting</td>
<td>Haverford/Baccarat</td>
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(Updated May 29, 2009)
### Monday, June 1

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<td>9:00-9:30</td>
<td>On the Geometry of Graphs with a Forbidden Minor</td>
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<td>9:35-9:55</td>
<td>Twice-Ramanujan Sparsifiers</td>
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<td>10:00-10:20</td>
<td>Max Cut and the Smallest Eigenvalue</td>
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<td>Homology Flows, Cohomology Cuts</td>
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<td>10:45-11:15</td>
<td>— Coffee break —</td>
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<td>11:15-11:40</td>
<td>Public-Key Cryptosystems from the Worst-Case Shortest Vector Problem</td>
<td>(Haverford/Baccarat)</td>
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<td>11:40-12:05</td>
<td>A Constructive Proof of the Lovász Local Lemma</td>
<td></td>
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<td>12:05-1:30</td>
<td>— Lunch — (Concours Terrace and Diplomat/Ambassador)</td>
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<tr>
<td>1:30-1:50</td>
<td>Universally Utility-Maximizing Privacy Mechanisms</td>
<td>(Haverford/Baccarat)</td>
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<tr>
<td>1:55-2:15</td>
<td>Private Coresets</td>
<td>(Waterford/Lalique)</td>
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<tr>
<td>2:20-2:40</td>
<td>Differential Privacy and Robust Statistics</td>
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<tr>
<td>2:45-3:05</td>
<td>On the Complexity of Differentially Private Data Release</td>
<td>(Haverford/Baccarat)</td>
</tr>
<tr>
<td>3:05-3:35</td>
<td>— Coffee break —</td>
<td>(Waterford/Lalique)</td>
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<tr>
<td>3:35-3:55</td>
<td>Affiliation Networks</td>
<td>(Haverford/Baccarat)</td>
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<tr>
<td>4:00-4:20</td>
<td>Fault-Tolerant Spanners for General Graphs</td>
<td>(Waterford/Lalique)</td>
</tr>
<tr>
<td>4:25-4:45</td>
<td>Hadwiger’s Conjecture is Decidable</td>
<td></td>
</tr>
<tr>
<td>4:50-5:10</td>
<td>Finding, Minimizing, and Counting Weighted Subgraphs</td>
<td></td>
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</table>

**Graph Cuts and Flows — Chair: Chris Umans**

- Finding Sparse Cuts Locally Using Evolving Sets
  - Reid Andersen and Yuval Peres

- On the Geometry of Graphs with a Forbidden Minor
  - James R. Lee and Anastasios Sidiropoulos

- Twice-Ramanujan Sparsifiers
  - Joshua D. Batson, Daniel A. Spielman and Nikhil Srivastava

- Max Cut and the Smallest Eigenvalue
  - Luca Trevisan

- Homology Flows, Cohomology Cuts
  - Erin W. Chambers, Jeff Erickson and Amir Nayyeri

**Optimization — Chair: Rocco Servedio**

- Integrality Gaps for Sherali-Adams Relaxations
  - Moses Charikar, Konstantin Makarychev and Yury Makarychev

- Sherali-Adams Relaxations of the Matching Polytope
  - Claire Mathieu and Alistair Sinclair

- CSP Gaps and Reductions in the Lasserre Hierarchy
  - Madhur Tulsiani

**Graphs — Chair: Rasmus Pagh**

- Affiliation Networks
  - Silvio Lattanzi and D. Sivakumar

- Fault-Tolerant Spanners for General Graphs
  - S. Chechik, M. Langberg, D. Peleg and L. Roditty

- Hadwiger’s Conjecture is Decidable
  - Ken-ichi Kawarabayashi and Bruce Reed

- Finding, Minimizing, and Counting Weighted Subgraphs
  - Virginia Vassilevska and Ryan Williams

**Complexity II — Chair: Jonathan Katz**

- On the Complexity of Communication Complexity
  - Eyal Kushilevitz and Enav Weinreb

- Bit-Probe Lower Bounds for Succinct Data Structures
  - Emanuele Viola

- Randomly Supported Independence and Resistance
  - Per Austrin and Johan Håstad

- Conditional Hardness for Satisfiable-3CSPs
  - Ryan O’Donnell and Yi Wu

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(Updated May 29, 2009)
## Tuesday, June 2

### 7:30-8:45

— Registration and Continental Breakfast — (Ballroom Foyer)

<table>
<thead>
<tr>
<th>8:45-9:05</th>
<th>A New Approach to Auctions and Resilient Mechanism Design</th>
<th>How Long Does it Take to Catch a Wild Kangaroo?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jing Chen and Silvio Micali</td>
<td>Ravi Montenegro and Prasad Tetali</td>
<td></td>
</tr>
<tr>
<td>9:10-9:30</td>
<td>Intrinsic Robustness of the Price of Anarchy</td>
<td>Random Walks on Polytopes and an Affine Interior Point Method for Linear Programming</td>
</tr>
<tr>
<td>Tim Roughgarden</td>
<td>Ravi Kannan and Hariharan Narayanan</td>
<td></td>
</tr>
<tr>
<td>9:35-9:55</td>
<td>On the Convergence of Regret Minimization Dynamics in Concave Games</td>
<td>Mixing Time for the Solid-on-Solid Model</td>
</tr>
<tr>
<td>Eyal Even-Dar, Yishay Mansour and Uri Nadav</td>
<td>Fabio Martinelli and Alistair Sinclair</td>
<td></td>
</tr>
<tr>
<td>10:00-10:20</td>
<td>Multiplicative Updates Outperform Generic No-regret Learning in Congestion Games</td>
<td>Reconstruction for the Potts Model</td>
</tr>
<tr>
<td>Robert Kleinberg, Georgios Piliouras and Eva Tardos</td>
<td>Allan Sly</td>
<td></td>
</tr>
<tr>
<td>10:25-10:45</td>
<td>MaxMin Allocation via Degree Lower-bounded Arborescences</td>
<td>Tight Lower Bounds for Greedy Routing in Uniform Small World Rings</td>
</tr>
<tr>
<td>Mohammad Hossein Bateni, Moses Charikar and Venkatesan Guruswami</td>
<td>Martin Dietzfelbinger and Philipp Woelfel</td>
<td></td>
</tr>
<tr>
<td>10:45-11:15</td>
<td>— Coffee break —</td>
<td></td>
</tr>
</tbody>
</table>

### 11:15-11:35

— Crypto II — Chair: Jonathan Katz (Haverford/Baccarat) — Geometry — Chair: Rasmus Pagh (Waterford/Lalique) —

| 11:15-11:35 | Non-Malleable Extractors and Symmetric Key Cryptography from Weak Secrets | Every Planar Graph is the Intersection Graph of Segments in the Plane |
| Yevgeniy Dodis and Daniel Wichs | Jeremie Chalopin and Daniel Goncalves |
| 11:40-12:00 | Inaccessible Entropy | Small-size ε-nets for Axis-Parallel Rectangles and Boxes |
| Iftach Haitner, Omer Reingold, Salil Vadhan and Hoeteck Wee | Boris Aronov, Esther Ezra and Micha Sharir |
| 12:05-12:25 | On Cryptography with Auxiliary Input | Explicit Construction of a Small ε-net for Linear Threshold Functions |
| Yevgeniy Dodis, Yael Tauman Kalai and Shachar Lovett | Yuval Rabani and Amir Shpilka |
| 12:30-2:00 | — Lunch — (Concours Terrace and Diplomat/Ambassador) |

### 2:00-2:20

— Approximation Algorithms II — Chair: Michael Mitzenmacher (Haverford/Baccarat) — Complexity III — Chair: Jonathan Kelner (Waterford/Lalique) —

| 2:00-2:20 | A Constant-Factor Approximation for Stochastic Steiner Forest | An Axiomatic Approach to Algebrization |
| Anupam Gupta and Amit Kumar | Russell Impagliazzo, Valentine Kabanets and Antonina Kolokolova |
| 2:25-2:45 | Multiple Intents Re-Ranking | Random Graphs and the Parity Quantifier |
| Yossi Azar, Iftah Gamzu and Xiaoxin Yin | Phokion Kolaitis, Swastik Kopparty |
| 2:50-3:10 | A Competitive Algorithm for Minimizing Weighted Flow Time on Unrelated Machines with Speed Augmentation | Holant Problems and Counting CSP |
| Jivitej S. Chadha, Naveen Garg, Amit Kumar and V. N. Muralidhara | Jin-Yi Cai, Pinyan Lu and Mingji Xia |
| 3:15-3:35 | Online and Stochastic Survivable Network Design | A New Line of Attack on the Dichotomy Conjecture |
| Anupam Gupta, Ravishankar Krishnaswamy and R. Ravi | Gabor Kun and Mario Szegedy |
| 3:35 | — Conference Ends — |