

Workshop III: Discrete Optimization

Tuesday October 26, 2010

- 8:30–9:15 *Check-In/Light Breakfast (Hosted by IPAM)*
- 9:15–9:30 *Welcome and Opening Remarks*
- 9:30–10:20 **Shmuel Onn** (Technion - Israel Institute of Technology)
The Graver Complexity of Integer Programming
- 10:30–11:00 *Break*
- 11:00–11:50 **Jon Lee** (IBM Thomas J. Watson Research Center)
Local search vs. LP for Matroid Matching
- 12:00–2:00 *Lunch (on your own)*
- 2:00–2:50 **Amitabh Basu** (University of California, Davis (UC Davis))
Recent trends in Cutting Planes for Mixed-Integer Linear Programs
- 3:00–3:15 *Break*
- 3:15–4:05 **Susan Margulies** (Rice University)
On the Nullstellensatz Method for Combinatorial Optimization
- 4:15–4:30 *Break*
- 4:30–5:20 **Bill Cook** (Georgia Institute of Technology)
Use of LP Bounds in Discrete Optimization
- 5:30–7:30 *Reception and Poster Session (Hosted by IPAM)*

Wednesday October 27, 2010

- 8:30–9:30 *Continental Breakfast*
- 9:30–10:20 **Maria Chudnovsky** (Columbia University)
Vertex-disjoint paths in tournaments
- 10:30–11:00 *Break*

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- 11:00–11:50 **Volker Kaibel** (Otto-von-Guericke-Universität Magdeburg)
Projections in Combinatorial Optimization
- 12:00–2:00 *Lunch (on your own)*
- 2:00–2:50 **Nick Harvey** (University of Waterloo)
Graph Sparsification by Edge-Connectivity and Random Spanning Trees
- 3:00–3:15 *Break*
- 3:15–4:05 **Sanjeev Khanna** (University of Pennsylvania)
Perfect Matchings in Regular Bipartite Graphs
- 4:15–4:30 *Break*
- 4:30–5:20 **Elad Hazan** (Technion - Israel Institute of Technology)
Sublinear time algorithms for classification

Thursday October 28, 2010

- 8:30–9:30 *Continental Breakfast*
- 9:30–10:20 **András Sebő** (CNRS, Laboratoire G-SCOP)
Gaps in Graphs and Bins
- 10:30–11:00 *Break*
- 11:00–11:50 **Bruce Shepherd** (McGill University)
Robust Network Design for General Polytopes
- 12:00–2:00 *Lunch (on your own)*
- 2:00–2:50 **Franz Rendl** (Universität Klagenfurt)
An SDP approach to ordering problems
- 3:00–3:15 *Break*
- 3:15–4:05 **Rekha Thomas** (University of Washington)
General Lifts of Polytopes
- 4:15–4:30 *Break*
- 4:30–5:20
TBA

Friday October 29, 2010

- 8:30–9:30 *Continental Breakfast*
- 9:30–10:20 **Satyen Kale** (Yahoo! Research)
Combinatorial Approximation Algorithms for MaxCut using Random Walks
- 10:30–11:00 *Break*
- 11:00–11:50 **Santanu Dey** (Georgia Institute of Technology)
On the Polyhedrality of Elementary Cutting Plane Closures of Convex Sets.
- 12:00–2:00 *Lunch (on your own)*
- 2:00–2:50 **Mohit Singh** (McGill University)
Improving Integrality Gaps via Chvatal-Gomory Rounding
- 3:00–3:15 *Break*
- 3:15–4:05 **Harald Räecke** (University of Warwick)
An Almost Tight Bound for Reordering Buffer Management
- 4:15–4:30 *Break*
- 4:30–5:20 **Prasad Raghavendra** (Georgia Institute of Technology)
Approximating Graph Expansion: Connections, Algorithms and Reductions.

