

## Efficiency of the Simplex Method: Quo vadis Hirsch conjecture?

**Tuesday January 18, 2011**

- 8:00–9:00 *Check-In/Light Breakfast (Hosted by IPAM)*
- 9:00–9:50 **Francisco Santos** (University of Cantabria)  
*A counter-example to the Hirsch conjecture*
- 10:00–10:30 *Break*
- 10:30–11:20 **Fred Holt** (University of Washington)  
*Images of paths*
- 11:30–1:30 *Lunch (on your own)*
- 1:30–2:20 **David Bremner** (University of New Brunswick)  
*Geodesic Embeddings of Path Complexes*
- 2:30–3:00 *Break*
- 3:00–3:50 **Günter Ziegler** (Technische Universität Berlin)  
*On bad linear programs*
- 4:00–6:00 *Poster Session & Reception (Hosted by IPAM)*

**Wednesday January 19, 2011**

- 8:00–9:00 *Continental Breakfast*
- 9:00–9:50 **David Avis** (Kyoto University)  
*History based pivot rules for acyclic USOs on hypercubes*
- 10:00–10:30 *Break*
- 10:30–11:20 **Bernd Gärtner** (ETH Zürich)  
*Support Vector Machines meet Goldfarb Cubes*
- 11:30–1:30 *Lunch (on your own)*
- 1:30–2:20 **Tamás Terlaky** (Lehigh University)  
*Algorithms and Conjectures for Linear Optimization*
- 2:30–2:45 *Break*
- 2:45–3:35 **Komei Fukuda** (ETH Zürich)  
*Walking on the arrangement, not on the feasible region*
- 3:45–4:00 *Break*

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4:00–4:50 **Yuriy Zinchenko** (University of Calgary)  
*Polytopes and Arrangements: Diameter and Curvature*

## Thursday January 20, 2011

8:00–9:00 *Continental Breakfast*

9:00–9:50 **Yinyu Ye** (Stanford University)  
*The Simplex and Policy-Iteration Methods are Strongly Polynomial for the Markov Decision Problem with a Fixed Discount Rate*

10:00–10:30 *Break*

10:30–11:20 **Oliver Friedmann** (Ludwig-Maximilians-Universität München)  
*Subexponential Lower Bounds for the Simplex Algorithm*

11:30–1:30 *Lunch (on your own)*

1:30–2:20 **Jim Renegar** (Cornell University)  
*Central Swaths (a generalization of the central path)*

2:30–2:45 *Break*

2:45–3:35 **Edward Kim** (Technische Universiteit te Delft)  
*Some variations on connected layer families*

3:45–4:00 *Break*

4:00–4:50 **Sergei Chubanov** (Universität-GHS Siegen)  
*A polynomial relaxation-type algorithm for linear programming*

## Friday January 21, 2011

8:00–9:00 *Continental Breakfast*

9:00–9:50 **Nicolai Hähnle** (École Polytechnique Fédérale de Lausanne (EPFL))  
*An abstract view on the polynomial Hirsch conjecture*

10:00–10:30 *Break*

10:30–11:20 **Jonathan Kelner** (Massachusetts Institute of Technology)  
*Integral Geometry and the Polynomial Hirsch Conjecture*

11:30–1:30 *Lunch (on your own)*

1:30–2:20 **Annamaria Amenta** (University of California, Davis (UC Davis))  
*Complexity of Delaunay Triangulation*

2:30–3:00 *Break*

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3:00–3:50     **Santosh Vempala** (Georgia Institute of Technology)  
*An Affine-invariant Algorithm for Linear Programming*

