The Abdus Salam International Centre for Theoretical Physics

Common Concepts in Statistical Physics and Computer Science

Organizer(s): Directors: S. Franz, M. Marsili, R. Zecchina (ICTP), A. Montanari (ENS & Stanford University), G. Parisi, F. Ricci-Tersenghi (Univ. La Sapienza)
Trieste - Italy, 02 - 06 July 2007

Venue: Adriatico Guest House Kastler Lecture Hall

Final programme

Monday, 2 July 2007 (Room:Adriatico Guest House Kastler Lecture Hall)

08:30 - 09:30	(Room: Outside Kastler lecture room) **REGISTRATION - All participants should go to registration desk**
09:30 - 10:00	**Break for Administrative purposes**
10:00 - 11:00	**J. Chayes** / *Microsoft Corporation, Redmond - U.S.A.* **Convergent Dense Graph Sequences**
11:00 - 11:30	--- Coffee Break ---
11:30 - 12:30	**C. Borgs** / *Microsoft Corporation, Redmond - U.S.A.* **First to Market is Not Everything: Preferential Attachment with Fitness**
12:30 - 14:30	--- Lunch Break ---
14:30 - 15:30	**J. Wastlund** / *Linkoping University - Sweden* **Optimization in Mean Field Models**
15:30 - 16:00	--- Coffee Break ---
16:00 - 17:00	**D. Aldous** / *University of California - Berkeley, U.S.A.* **When knowing early matters: Gossip, Percolation and Nash Equilibrium**

Tuesday, 3 July 2007 (Room:Adriatico Guest House Kastler Lecture Hall)

10:00 - 11:00	**M. Wainwright** / *UC Berkeley -U.S.A.* **Sparse graph codes for binning and coding with side information**
11:00 - 11:30	--- Coffee Break ---
11:30 - 12:30	**D. Shah** / *M.I.T., Cambridge - U.S.A.* **Algorithmic Independence and Duality**
12:30 - 14:30	--- Lunch Break ---
14:30 - 15:30	**P. Tetali** / *Georgia Institute of Technology*
15:30 - 16:00	--- Coffee Break ---
16:00 - 16:30	**A. Ramezanpour** / *ICTP, Trieste* **Entropy landscape andnon-Gibbs solutions in a constraints satisfaction problem**
16:30 - 17:00	**L. Zdeborova** / *Universite XI (Paris-Sud), France* **Phase transition in colouring**
18:00 - 20:00	(Room: Adriatico Guest House (Terrace)) **Small Reception**

Wednesday, 4 July 2007 (Room:Adriatico Guest House Kastler Lecture Hall)

10:00 - 11:00	**M. Mezard** / *Universite XI (Paris-Sud), France* **Group testing and hyper vortex cover**
11:00 - 11:30	--- Coffee Break ---
11:30 - 12:30	**G. Semerijan** / *Ecole Normale Superieure, Paris - France* **Phase transition in random constraint satisfaction problems**
12:30 - 14:30	--- Lunch Break ---
14:30 - 15:30	**D. Achlioptas** / *Microsoft Corporation, Redmond -U.S.A.*
15:30 - 16:00	--- Coffee Break ---
16:00 - 16:30	**G. Parisi** / *Univ. La Sapienza, Italy* **Large deviations and very large deviations**
16:30 - 17:00	**A. Montanari** / *Stanford, U.S.A. & ENS, France* **Reconstruction of Random Graphs**

Thursday, 5 July 2007 (Room:Adriatico Guest House Kastler Lecture Hall)

10:00 - 11:00 **D. Gamarnik** / *M.I.T., Cambridge - U.S.A.*

11:00 - 11:30 --- Coffee Break ---

11:30 - 12:30 **P. Tetali** / *Georgia Institute of Technology, Atlanta - USA*
Counting matchings & independent sets

12:30 - 14:30 --- Lunch Break ---

14:30 - 15:30 **R. Urbanke** / *Ecole Polytechnique Federal de Lausanne - Switzerland*

15:30 - 16:00 --- Coffee Break ---

16:00 - 16:30 **M. Bayati** / *Microsoft Corporation, Redmond - U.S.A.*

16:30 - 17:00 **H. Bauke** / *University of Oxford - U.K.*
Structural Phase Transition in dynamical networks

Friday, 6 July 2007 (Room:Adriatico Guest House Kastler Lecture Hall)

09:30 - 10:00 **Yi Lu** / *Stanford University - USA*

10:00 - 11:00 **T. Tanaka** / *Kyoto University - Japan*

11:00 - 11:30 --- Coffee break ---

11:30 - 12:30 **Y. Kabashima** / *Tokyo Institute of Technology, Yokohama - Japan*