

**Asian-Pacific School on Statistical Physics and Interdisciplinary Applications &
International Conference on Recent Advances in the Interdisciplinary Applications of Statistical Physics**
Beijing, P.R. China (11-22 Sep. 2006)

Programme

Registration: 11 Sep., Monday, 8:00-8:30

| School | 11 Sep, Mon | 12 Sep, Tue | 13 Sep, Wed | 14 Sep Thu | 15 Sep, Fri | 18 Sep, Mon | 19 Sep, Tue | |
|--------------------|----------------------------------|---------------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------|--------------------|--|
| Chairperson | <i>Marsili, M.</i> | <i>Franz, S.</i> | <i>Liu, J.X.</i> | <i>Kabashima, Y.</i> | <i>Weigt, M.</i> | <i>Tang, L.H.</i> | <i>Mezard, M.</i> | |
| 08:30 – 09:30 | Mukamel, D. (1) (8:40 – 9:30) | Mukamel, D. (2) | Mezard, M. (1) | Mezard, M. (2) | Nadal, J.-P. (2) | Potters, M. (1) | Potters, M. (2) | |
| 09:50 – 10:50 | Godreche, C. (1) | Godreche, C. (2) | Franz, S. (1) | Franz, S. (2) | Kabashima, Y. (2) | Ouyang, Q. (2) | Dhar, D. (2) | |
| 11:10 - 12:10 | Weigt, M. | Kurchan, J. (2) | Bianconi, G. (2) | Nadal, J.-P. (1) | Park, H. (2) | Dhar, D. (1) | Marsili, M. (2) | |
| Chairperson | <i>Chen, X.-S.</i> | <i>Zhong, F.</i> | | <i>Tzeng, W.-J.</i> | <i>Dhar, D.</i> | <i>Gou, C.-L.</i> | | |
| 14:00 - 15:00 | Kurchan, J. (1) | Bianconi, G. (1) | | Kabashima, Y. (1) | Marsili, M. (1) | Barma, M. A. | | |
| 15:20 - 16:20 | Majumdar, S.N. (1) | Majumdar, S.N. (2) | | Park, H. (1) | Ouyang, Q. (1) | Wang, B.-H. | | |
| Conference | 20 Sep, Wed | 21 Sep, Thu | 22 Sep, Fri | <div style="border: 1px solid black; padding: 10px;"> <p style="text-align: center;">Venue: GUCAS S201</p> <p style="text-align: center;">Zhong Guan Cun Campus, Graduate University of CAS (GUCAS) No. 3 Zhong Guan Cun Nan Er Tiao</p> <p style="text-align: center;">会场地址: 中关村南二条 3 号, 中科院研究生院中关村校区 S201 教室</p> <p style="text-align: center;">(北四环保福寺桥西南角, 恒兴大厦处西拐 150 米)</p> </div> | | | | |
| Chairperson | <i>Godreche, C.</i> | <i>Wan, X.</i> | <i>Wang, B.-H.</i> | | | | | |
| 09:00 - 09:40 | Mukamel, D. | Hu, G. | Zhang, Y.-C. | | | | | |
| 09:40 - 10:20 | Chen, X.-S. | Park, H. | Potters, M. | | | | | |
| 10:50 – 11:30 | Mezard, M. | Dhar, A. | Nadal, J.-P. | | | | | |
| 11:30 - 12:10 | Tang, L.H. | Wong, K.Y.M. | De Sanctis, L. | | | | | |
| Chairperson | <i>Hu, G.</i> | <i>Wong, K.Y.M.</i> | <i>Weigt, M.</i> | | | | | |
| 14:00 - 14:40 | Bianconi, G | Weigt, M. | Zhang, Y. | | | | | |
| 14:40 - 15:20 | Dhar, D. | Wang, B.-H. | Kumar, S. | | | | | |
| 15:50 – 16:30 | Barma, M.A. | Chakraborti, A. | Zhou, H. | | | | | |
| 16:30 - 17:10 | Noh, J.-D. | Majumdar, S. N. | | | | | | |

School

11 Sep, Mon

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|---------------|-----------------------------------------------------|---------------------------------------------------------------------------------|
| 08:30 – 09:30 | Mukamel, D. (1) Israel, Weizmann Ins. of Science | Ordering and condensation in one dimensional driven systems: I |
| 09:50 – 10:50 | Godreche, C. (1) France, CEA Saclay | Some of the facets of the dynamics of equilibrium and nonequilibrium systems: I |
| 11:10 - 12:10 | Weigt, M. Italy, Ins for Scientific Interchange | Gene Regulation: Introduction and Thermodynamics |
| 14:00 - 15:00 | Kurchan, J. (1) France, ESPCI | Non-equilibrium work relations: I |
| 15:20 - 16:20 | Majumdar, S.N. (1) France, U. XI | Understanding Search Trees via Statistical Physics: I |

12 Sep, Tue

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|---------------|---------------------------------|----------------------------------------------------------------------------------|
| 08:30 - 09:30 | Mukamel, D. (2) | Ordering and condensation in one dimensional deiven systems: II |
| 09:50 - 10:50 | Godreche, C. (2) | Some of the facets of the dynamics of equilibrium and nonequilibrium systems: II |
| 11:10 - 12:10 | Kurchan, J. (2) | Non-equilibrium work relations: II |
| 14:00 - 15:00 | Bianconi, G. (1) Italy, ICTP | Percolation problems in networks theory |
| 15:20 - 16:20 | Majumdar, S.N. (2) | Understanding Search Trees via Statistical Physics: II |

13 Sep, Wed

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|---------------|---------------------------------|------------------------------------------------------------|
| 08:30 - 09:30 | Mezard, M. (1) France, U. XI | Statistical physics of constraint satisfaction networks: I |
| 09:50 - 10:50 | Franz, S. (1) Italy, ICTP | Models of Influenza A Virus Dynamics: I |
| 11:10 - 12:10 | Bianconi, G. (2) | Abundance of subgraphs in random networks |

14 Sep, Thu

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|---------------|------------------------------------------------|-------------------------------------------------------------------|
| 08:30 - 09:30 | Mezard, M. (2) | Statistical physics of constraint satisfaction networks: II |
| 09:50 - 10:50 | Franz, S. (2) | Models of Influenza A Virus Dynamics: II |
| 11:10 - 12:10 | Nadal, J.-P. (1) France, ENS | Modeling collective behaviors in economics and social sciences: I |
| 14:00 - 15:00 | Kabashima, Y. (1) Japan, Tokyo Ins of Tech. | Statistical Mechanics of CDMA Communication I: Static Analysis |
| 15:20 - 16:20 | Park, H. (1) Korea Ins. for Advanced Study | Nonequilibrium phase transitions into absorbing states: I |

15 Sep, Fri

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|---------------|--------------------------------|--------------------------------------------------------------------|
| 08:30 - 09:30 | Nadal, J.-P. (2) | Modeling collective behaviors in economics and social sciences: II |
| 09:50 - 10:50 | Kabashima, Y. (2) | Statistical Mechanics of CDMA Communication II: Dynamics |
| 11:10 - 12:10 | Park, H. (2) | Nonequilibrium phase transitions into absorbing states: II |
| 14:00 - 15:00 | Marsili, M. (1) Italy, ICTP | Models of single asset markets and the minority game |

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| 15:20 - 16:20 | Ouyang, Q. (1) China, Peking U. | The dynamic property of a biological network: I |
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18 Sep, Mon

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| 08:30 - 09:30 | Potters, M. (1) France, CFM | Methods of statistical physics in finance: I |
| 09:50 - 10:50 | Ouyang, Q. (2) | The dynamic property of a biological network: II |
| 11:10 - 12:10 | Dhar, D. (1) India, Tata Institute | Introduction to Self-organized criticality: I |
| 14:00 - 15:00 | Barma, M.A. India, Tata Institute | Particles in fluctuating potentials |
| 15:20 - 16:20 | Wang, B.-H. China, U. Science & Tech. of China | Integer Network, Random Apollonian Network and Weighted Technological Networks Driven By Traffic Flow |

19 Sep, Tue

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|---------------|-----------------|------------------------------------------------|
| 08:30 - 09:30 | Potters, M. (2) | Methods of statistical physics in finance: II |
| 09:50 - 10:50 | Dhar, D. (2) | Introduction to Self-organized criticality: II |
| 11:10 - 12:10 | Marsili, M. (2) | Modeling multi asset markets |

Conference

20 Sep, Wed

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|---------------|-----------------------------------------|------------------------------------------------------------------------------|
| 09:00 - 09:40 | Mukamel, D. | Condensation and criticality in a non-conserving Zero Range Process |
| 09:40 - 10:20 | Chen, X.-S. China, ITP-CAS | Non-universal finite-size scaling in anisotropic systems |
| 10:50 – 11:30 | Mezard, M. | Geometry of solutions to random linear Boolean systems |
| 11:30 - 12:10 | Tang, L.H. China, HK Baptist U. | Ground state and glass transition of the RNA secondary structure |
| 14:00 - 14:40 | Bianconi, G. | Weighted random networks |
| 14:40 - 15:20 | Dhar, D. | Distribution of residence times of grains in ricepiles and sandpiles |
| 15:50 – 16:30 | Barma, M.A. | Deposition-evaporation dynamics of needles: gradient-induced ordering |
| 16:30 - 17:10 | Noh, J.D. Korea, University of Seoul | Epidemic dynamics of interacting two particle species on scale-free networks |

21 Sep, Thu

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|---------------|---------------------------------------------------|------------------------------------------------------|
| 09:00 - 09:40 | Hu, G. China, Beijing Normal U. | Pattern formation in chaotic extended systems |
| 09:40 - 10:20 | Park, H. | Finite size scaling in complex networks |
| 10:50 – 11:30 | Dhar, A. India, Raman Research Ins. | Heat conduction in harmonic and anharmonic lattices |
| 11:30 - 12:10 | Wong, K.Y.M. China, HK U. of Science and Tech. | Inference and Resource Optimization on Sparse Graphs |

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|--------------------|---------------------------------------------|------------------------------------------------------------------------------|
| 14:00 - 14:40 | Weigt, M. | Inference of gene-regulatory networks - A statistical physics perspective |
| 14:40 - 15:20 | Wang, B.-H. | Research on Possible New Routing Strategy in the Future Internet |
| 15:50 – 16:30 | Chakraborti, A. India, Bararas Hindu U. | Genome-Wide Identification of Transcription Factor Binding Sites |
| 16:30 - 17:10 | Majumdar, S.N. | Phase Transition in Growing Trees |
| 22 Sep, Fri | | |
| 09:00 - 09:40 | Zhang, Y.-C. Switzerland, U. of Fribourg | Statistical physics and internet applications |
| 09:40 - 10:20 | Potters, M. | On the top eigenvalue of random matrices with power law distributed elements |
| 10:50 – 11:30 | Nadal, J.-P. | Modeling collective behaviors in economics and social sciences |
| 11:30 - 12:10 | De Sanctis, L. | A rigorous approach to dilute mean field spin glasses |
| 14:00 - 14:40 | Zhang, Y. USA, U. Kansas | New approaches to protein structure prediction |
| 14:40 - 15:20 | Kumar, S. India, Bararas Hindu U. | Unfolding of biopolymers |
| 15:50 – 16:30 | Zhou, H. China, ITP-CAS | Statistical physical treatment of the minimal vertex cover problem |
| 16:30 - 17:10 | | |