

23rd CLAUDE ITZYKSON CONFERENCE:

STATISTICAL PHYSICS OF DISORDERED AND COMPLEX SYSTEMS: A TRIBUTE TO CIRANO DE DOMINICIS

IPhT, CEA Saclay, June 4-6, 2018

Conference Program

Monday June 4

- 08:30-09:00 Registration
- 09:00-09:30 Opening addresses by François David, Roger Balian, Edouard Brézin
- 09:30-10:15 **Bernard Derrida**
The many faces of the Fisher-KPP equation
- 10:15-11:00 **Annette Zippelius**
Emergence of long-range stress correlations at the liquid to glass transition

11:00-11:30 Coffee Break

- 11:30-12:15 **Michael Moore**
Is there replica symmetry breaking in Ising spin glasses in physical dimensions?
- 12:15-13:00 **Philippe Di Francesco**
Paths and Arctic Curves

13:00-14:15 Buffet Lunch in the Hall

- 14:15-15:00 **Catherine Pépin**
Five questions about the pseudo-gap phase of the cuprates
- 15:00-15:45 **Irene Giardinà**
Dynamic scaling in natural swarms

15:45-16:15 Coffee Break

- 16:15-17:00 **Imre Kondor**
On some phase transitions in high-dimensional combinatorial geometry

17:15-17:20 Bus to Le Guichet

Tuesday June 5

09:30-10:15 **Peter Mottishaw**
Finite size effects and replica symmetry breaking; what can we learn from exact results?

10:15-11:00 **Lenka Zdeborova**
Statistical physics of learning a rule: Decades old story continued

11:00-11:30 Coffee Break

11:30-12:15 **Francesco Guerra**
Interpolating on the number of replicas

12:15-13:00 **Andrea Crisanti**
Low-Temperature Mass Spectrum of the Ising Spin Glass

13:00-14:15 Buffet Lunch in the Hall

14:15-14:30 **Enzo Marinari**
Large scale numerical simulations and news about spin glass physics

14:30-14:45 **Victor Dotsenko**
Two-temperature statistics of free energies in (1+1) directed polymers

14:45-15:00 **David Sherrington**
Spin glasses and Random Fields in Displacive Relaxor Ferroelectrics

15:00-15:15 **Vladimir Kravtsov**
Localization and duality in power-law Euclidian random matrices

15:15-15:45 Coffee Break

15:45-16:00 **Hans Werner Diehl**
Fluctuation-induced forces in confined free and imperfect Bose gases

16:00-16:15 **Thomas Guhr**
New exact results on the distribution of cross sections in chaotic scattering

16:15-16:30 **Ayşe Erzan**
Field theory and renormalization group on non-metric spaces

16:30-16:45 **Riccardo Zecchina**
On the role of stochasticity in learning processes

17:00-17h05 Bus to Le Guichet

Wednesday June 6

09:30-10:15 **Giorgio Parisi**
Energy landscape near jamming

10:15-11:00 **Marc Mézard**
Statistical physics of inference: current trends

11:00-11:30 Coffee Break

11:30-12:15 **Henk Hilhorst**
Playing with the Game of Life

12:15-13:00 **Roger Balian**
Quantum measurement, a problem of statistical mechanics

13:00-14:15 Buffet Lunch in the Hall

14:15-15:00 **Olivier Parcollet**
Quantum many-body problem: recent progress on high temperature superconductivity

15:00-15:45 **Bertrand Halperin**
Particle-Hole Symmetry in a Partially-Filled Landau Level

16:00-16h05 Bus to Le Guichet