

Programme on “Combinatorics, Geometry, and Physics”

organized by

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June 2 - July 31, 2014

Workshop Schedule: “Random Tensor”

July 14 - 18, 2014

• **Monday, July 14, 2014**

09:00 **Opening & Registration**

09:30 – 10:30 **Efstratia Kalfagianni**

State surfaces in quantum and geometric topology

10:30 – 11:00 *coffee/tea break*

11:00 – 12:00 **Razvan Gurau**

Tensor Models in the Large N limit

12:00 – 14:00 *lunch break*

14:00 – 15:00 **Daniele Oriti**

Group field theories: the combinatorics of tensor models, the quantum geometry of loop quantum gravity

15:00 – 15:30 *break*

15:30 – 16:30 **Harald Grosse**

Exact solution of a four dimensional field theory

• **Tuesday, July 15, 2014**

09:30 – 10:30 **Vincent Rivasseau**

Constructive tensor field theory

10:30 – 11:00 *coffee/tea break*

11:00 – 12:00 **Bruno Benedetti**

Local constructions of manifolds

12:00 – 14:00 *lunch break*

14:00 – 15:00 **Roland van der Veen**

Symplectic properties of ideal triangulations

15:00 – 15:30 *break*

15:30 – 16:30 **Camille Male**

The distribution of traffics of large random matrices

- **Wednesday, July 16, 2014**

09:30 – 10:30 **Renate Loll**

Causal structure and time in (generalized) CDT quantum gravity

10:30 – 11:00 *coffee/tea break*

11:00 – 12:00 **Jean-Pierre Eckmann**

The dynamics of 2d- and 3d-topological glasses

- **Thursday, July 17, 2014**

09:30 – 10:30 **Benoît Collins**

(Random) Tensors and (Asymptotic) Freeness

10:30 – 11:00 *coffee/tea break*

11:00 – 12:00 **Bianca Dittrich**

Quantum Spacetime Engineering

12:00 – 14:00 *lunch break*

14:00 – 15:00 **Christoph Koutschan**

On the AJ conjecture of connected sums of knots

15:00 – 15:30 *break*

15:30 – 16:30 **James Ryan**

Double scaling in tensor models

- **Friday, July 18, 2014**

09:30 – 10:30 **Thomas Krajewski**

Analyticity results for the cumulants in a quartic matrix model

10:30 – 11:00 *coffee/tea break*

11:00 – 12:00 **Matthew Kahle**

Phase transitions for homology in random simplicial complexes

All lectures take place in the ESI Boltzmann Lecture Hall