

**Mathematical Physics of Non-Equilibrium Quantum Systems
King's College London**

*Talks: Anatomy Lecture Theatre
Coffee breaks, posters and registration: Anatomy Museum
(6th floor, King's Building, Strand)*

Thursday 18 December

09:00 – 10:00 registration

10:00 – 10:35 Tomaž Prosen (University of Ljubljana)
Exact solutions of boundary-driven quantum master equations and new conservation laws

10:35 – 11:10 Jens Eisert (Freie Universität Berlin)
Many-body localisation, tensor networks, and transport

11:10 – 11:40 coffee break / posters

11:40 – 12:15 Denis Bernard (École Normale Supérieure de Paris)
Statistics of Quantum Jumps and Spikes, and Applications

12:15 – 12:50 Dirk Schuricht (University of Utrecht)
Integrability-based analysis of the hyperfine interaction induced decoherence in quantum dots

12:50 – 15:00 lunch and informal discussions

IoP Theoretical and Mathematical Physics Group Committee Meeting. 13:30, S4.29.

15:00 – 15:35 Fabian Essler (University of Oxford)
Light Cone Effects after Quantum Quenches

15:35 – 16:10 Gábor Takács (Budapest University of Technology and Economics)
Correlations after quantum quenches in the XXZ spin chain: Failure of the Generalized Gibbs Ensemble

16:10 – 16:40 coffee break / posters

16:40 – 17:15 Alexandre Faribault (Université de Lorraine)
Eigenvalue-based determinants for a class of integrable models derived from a Generalized Gaudin Algebra

17:15 – 17:50 panel led discussion

19:30 - Conference dinner, Sofra Covent Garden

Friday 19 December

09:00 – 09:35 Giovanni Jona-Lasinio (La Sapienza, Università di Roma)
Macroscopic fluctuation theory: an introduction and some applications

09:35 – 10:10 Juan P. Garrahan (University of Nottingham)
Dynamical phase transitions and quantum enhanced metrology

10:10 – 10:45 Vivien Lecomte (LPMA, Universités Paris 6-7)
Exclusion processes and quantum phase transitions in XXZ spin chains

10:45 – 11:15 coffee break / posters

11:15 – 11:50 Karyn Le Hur (CPHT École Polytechnique de Paris, CNRS)
Stochastic Quantum Spin Dynamics and Quenches

11:50 – 12:25 Andrew Green (University College London)
Field Theories over Tensor Network States

12:25 – 14:30 lunch and informal discussions

14:30 – 15:05 John Cardy (University of Oxford)
Quantum Quench in a Non-integrable Model: some analytic results

15:05 – 15:40 Édouard Boulat (Université Paris Diderot)
Exploiting integrability out-of-equilibrium: some exact results for the Kondo model

15:40 – 16:15 Rogier Vlijm (University of Amsterdam)
Applications of algebraic Bethe ansatz matrix elements to spin chains

16:15 – 16:45 coffee break / posters

16:45 – 17:20 panel led discussion

17:20 – 17:30 closing remarks