

Tentative Program of the EPSRC NetworkPlus workshop:

**“Equilibration and Glassiness in Classical and Quantum Systems...”,**

**St. Catherine’s college, Oxford, 26–27 September 2014**

**Friday 26th of September**

10:00-10:20 Registration, coffee

10:20-10:30 Foreword by the organisers, workshop opening

**Session: Non-equilibrium systems from classical to quantum (chair Claudio Castellano)**

10:30-11:10 **Rob Jack** (University of Bath)  
“Large deviations and glass transitions”

11:10-11:30 Questions and discussions

11:30-12:10 **Juan Garrahan** (University of Nottingham)  
“Kinetically constrained models of glasses, from classical to quantum”

12:10-12:30 Questions and discussions

12:30-13:00 Free discussions

13:00-14:00 Lunch at the college

**Session: Non-equilibrium low-dimensional quantum systems (chair Fabian Essler)**

14:00-14:40 **Frederic Pierre** (Laboratoire de Photonique et Nanostructures, CNRS, Paris)  
“Experimental investigation of the energy transfers in quantum Hall edge channels driven out-of-equilibrium”

14:40-15:00 Questions and discussions

15:00-15:40 **John Chalker** (Theoretical Physics, Oxford University)  
“The dynamics of Integer quantum Hall edge states far from equilibrium”

15:40-16:00 Questions and discussions

16:00-16:30 Coffee break + Free discussions

16:30-17:10 **Jean-Sebastien Caux** (University of Amsterdam)  
“Exact solutions for quenches in 1d: lessons from integrability”

17:10-17:30 Questions and discussions

17:30-18:00 Free discussions

18:00-19:00 Colloquium, **Roderich Moessner** (Max Planck Institute for the Physics of Complex Systems, Dresden), title TBA, (chair **Stephen Powell**)

19:00 - Dinner

**Saturday 27th of September**

**Session: Equilibration, thermalization, glassiness (chair Benoît Douçot)**

08:30-09:10 **Gabriel Aeppli** (Paul Scherrer Institute)  
“From quantum to classical wave heat sinking”

09:10-09:30 Questions and discussions

09:30-10:10 **Jorge Kurchan** (École normale supérieure - Paris)  
“Quantum Annealing of Hard ‘Glassy’ Problems”

10:10-10:30 Questions and discussions

10:30-11:00 Coffee break + free discussions

11:00-11:40 **Claudio Chamon** (Boston University)  
“Non-equilibrium steady state design of electronic properties”

11:40-12:00 Questions and discussions

**12:00-13:00 Discussions on future strategies for non-equilibrium (chair Chris Hooley)**

13:00-14:00 Lunch

**Session: Quantum coherence, quantum algorithms, and quantum computations  
(chair Gunnar Moeller)**

14:00-14:40 **Steve Simon** (Theoretical Physics, Oxford University)  
“Self-correction of quantum simulations and quantum memories”

14:40-15:00 Questions and discussions

15:00-15:40 **Lev Ioffe** (Rutgers and LPTHE/CNRS Paris)  
“Phase diagram of a Josephson-junction chain: non-ergodicity and many-body localization”

15:40-16:00 Questions and discussions

16:00-16:30 Coffee break + free discussions

16:30-17:10 **Matthias Troyer** (ETH Zurich),  
“Analog and digital quantum simulation: from optical lattices and the D-Wave devices to quantum computers”

17:10-17:30 Questions and discussions

17:30-17:40 **Closing of the workshop**

## Participants

Meera Parish (UCL)  
Marzena Szymańska (UCL)  
Joe Bhaseen (King's college London)  
Andrew Green (UCL)  
Peter Sollich (King's college London)  
Gabriel Aeppli (Paul Scherrer Institute)  
Benjamin Doyon (King's college London)  
Igor Lerner (University of Birmingham)  
Benjamin Béri (University of Birmingham)  
Dima Gangardt (University of Birmingham)  
Alexandre Zagoskin (Loughborough University)  
Juan Garrahan (University of Nottingham)  
Rob Jack (University of Bath)  
Stephen Powell (University of Nottingham)  
Nigel Cooper (TCM, University of Cambridge)  
Gunnar Möller (TCM, University of Cambridge)  
Dima Khmel'nitskii (TCM, University of Cambridge)  
Claudio Castelnovo (TCM, University of Cambridge)  
Dima Kovrizhin (TCM, University of Cambridge)  
Austen Lamacraft (TCM, University of Cambridge)  
Ben Simons (TCM, University of Cambridge)  
Jonathan Keeling (University of St. Andrews)  
Chris Hooley (University of St. Andrews)  
Roderich Moessner (Max Planck Institute for the Physics of Complex Systems)  
Matthias Troyer (ETH, Zurich)  
Emil Bergholtz (Free University, Berlin)  
Frédéric Pierre (LPN/CNRS Paris)  
Benoît Douçot (LPTHE/CNRS Paris)  
Lev Ioffe (LPTHE/CNRS Paris, and Rutgers)  
Jean-Sébastien Caux (University of Amsterdam)  
Jorge Kurchan (ENS Paris)  
Claudio Chamon (Boston University)  
David Sherrington (University of Oxford)  
John Chalker (University of Oxford)  
John Cardy (University of Oxford)  
Fabian Essler (University of Oxford)  
Steve Simon (University of Oxford)  
Radu Coldea (University of Oxford)  
Nicholas Chancellor (UCL)