

Programme on
“Quantum Many-body Systems, Random Matrices and Disorder”
June 1 - July 31, 2015

organized by

László Erdős (IST Austria), Robert Seiringer (IST Austria), Simone Warzel (TU Munich)

Workshop I, June 8 - 12, 2015

• **Monday, June 8, 2015**

09:00 – 09:30 **Opening & Registration**

09:30 – 10:30 **Jan Philip Solovej**

The Bogolubov Variational Model for Bose gases

10:30 – 11:00 *coffee / tea break*

11:00 – 12:00 **Jeff Schenker**

Dissipative transport in the localized regime

12:00 – 14:00 *lunch break*

14:00 – 15:00 **Hermann Schulz-Baldes**

An index walk in the periodic table

15:00 – 15:30 *break*

15:30 – 16:30 **Wojciech De Roeck**

(Energy) localization in driven systems

• **Tuesday, June 9, 2015**

09:30 – 10:30 **Nicolas Rougerie**

Incompressibility estimates for the Laughlin phase

10:30 – 11:00 *coffee / tea break*

11:00 – 12:00 **Wolfgang Spitzer**

Area law for the entanglement entropy of the free Fermi gas at nonzero temperature

12:00 – 14:00 *lunch break*

14:00 – 15:00 **Jörg Schmiedmayer**

‘Solving’ a Quantum Many Body Problem by Experiment

15:00 – 15:30 *break*

15:30 – 16:30 **Jakob Yngvason**

Superfluidity and BEC in a model of interacting Bosons in a Random Potential

- **Wednesday, June 10, 2015**

NOTE: All talks on Wednesday are held at IST Austria

10:00 – 11:00 **Elliott Lieb**

Indirect Coulomb Energy with Gradient Correction

11:00 – 11:15 *coffee / tea break*

11:15 – 12:15 **Simone Warzel**

From adiabatic computing to the phase transition in the QREM

12:15 – 14:00 *lunch break*

14:00 – 15:00 **Giulio Biroli**

TBA

15:00 – 16:00 **Benjamin Schlein**

Time-evolution of quantum systems in the BCS approximation

- **Thursday, June 11, 2015**

09:30 – 10:30 **Sven Bachmann**

Scattering theory for gapped quantum spin systems

10:30 – 11:00 *coffee / tea break*

11:00 – 12:00 **Benjamin Landon**

Convergence of local statistics of Dyson Brownian motion

12:00 – 14:00 *lunch break*

14:00 – 15:00 **Yuriy Nemish**

About some local properties of the products of independent square non-hermitian random matrices with independent entries

15:00 – 15:30 *break*

15:30 – 16:30 **Martin Gebert**

On the asymptotics of eigenfunction-correlation determinants

- **Friday, June 12, 2015**

09:30 – 10:30 **Margherita Disertori**

Transfer matrix approach in the supersymmetric context

10:30 – 11:00 *coffee / tea break*

11:00 – 12:00 **Marco Tarzia**

TBA

12:00 – 14:00 *lunch break*

14:00 – 15:00 **Eman Hamza**

Product Vacua and Boundary State Models in d -Dimensions

15:00 – 15:30 *break*

15:30 – 16:30 **Roland Bauerschmidt**

Eigenvalues of random regular graphs

Except for Wednesday, all talks take place at the ESI, Boltzmann Lecture Hall!