

**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 II, July 13 - 17, 2015**

• **Monday, July 13, 2015**

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

09:30 – 10:30 **Abel Klein**

*An eigensystem approach to Anderson localization*

10:30 – 11:00 *coffee / tea break*

11:00 – 12:00 **Frederic Klopp**

*TBA*

12:00 – 14:00 *lunch break*

14:00 – 15:00 **Janek Wehr**

*Low lying eigenvalues of the one-dimensional Schrödinger operator with a Bernoulli random potential*

15:00 – 15:30 *break*

15:30 – 16:30 **Sasha Sodin**

*Invertibility in deformed Gaussian ensembles and some applications*

17:00: **Reception** at the Palais Strudlhof

• **Tuesday, July 14, 2015**

09:30 – 10:30 **Jens Eisert**

*Unifying various facets of many-body localization*

10:30 – 11:00 *coffee / tea break*

11:00 – 12:00 **Michael Knap**

*Dynamics of disordered many-body systems: from thermal transport to many-body localization*

12:00 – 14:00 *lunch break*

14:00 – 15:00 **John Imbrie**

*Iterated Schur complementation and the level-spacing problem*

15:00 – 15:30 *break*

15:30 – 16:30 **Denis Basko**

*Chaos vs Anderson localization in classical disordered nonlinear chains*

- **Wednesday, July 15, 2015**

**NOTE: All talks on Wednesday are held at IST Austria**

10:00 – 11:00 **Michael Aizenman**

*TBA*

11:00 – 11:15 *coffee / tea break*

11:15 – 12:15 **Yan Fyodorov**

*Random matrix theory for resonances in chaotic wave scattering: A short overview*

12:15 – 14:00 *lunch break*

14:00 – 15:00 **Markus Müller**

*Many-body localization: A route to retaining quantum memory in interacting systems*

15:00 – 16:00 **Wilhelm Zwerger**

*Attractive Fermi gases at infinite coupling: a new paradigm in many-body physics*

- **Thursday, July 16, 2015**

09:30 – 10:30 **Leonid Pastur**

*Large Block Behavior of the Entanglement Entropy of Disordered Fermions*

10:30 – 11:00 *coffee / tea break*

11:00 – 12:00 **Vojkan Jaksic**

*Conductance and AC spectrum of 1D samples*

12:00 – 14:00 *lunch break*

14:00 – 15:00 **Vieri Mastropietro**

*Localization in an interacting quasi-periodic fermionic chain*

15:00 – 15:30 *break*

15:30 – 16:30 **Tatyana Shcherbina**

*Universality of the local regime for some types of random band matrices*

- **Friday, July 17, 2015**

09:30 – 10:30 **Heinz Siedentop**

*Accumulation Rate of Bound States of Dipoles in Graphene*

10:30 – 11:00 *coffee / tea break*

11:00 – 12:00 **David Hasler**

*Asymptotic expansions in quantum field theory*

12:00 – 14:00 *lunch break*

14:00 – 15:00 **Robert König**

*Disorder-assisted error correction in Majorana chains*

15:00 – 15:30 *break*

15:30 – 16:30 **Valentin Zagrebnov**

*Dynamical Semigroups for Unbounded Repeated Perturbation*

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