



# Quantum-Classical Transition in Many-Body Systems: Indistinguishability, Interference and Interactions

## International Workshop 13 - 17 February 2017

Improved diagnostics and control of multi-path and/or -particle quantum coherence effects promise a much improved understanding of the microscopic structure, the dynamics and the functionality of complex quantum systems. Emergent phenomena, many-body equilibration and coherence in warm, disordered, or hierarchical structures define a basin of attraction for research in biophysics, cold matter, photonics, and statistical physics. The workshop blends such diverse perspectives, to better resolve the quantum-classical demarcation line in complex territories.



### Topics

- Exciton networks and quantum walks
- Many-body scattering in photonic systems
- Equilibration and interference in closed many-body systems
- Many-body transport in interacting systems

### Confirmed speakers:

(see web page for full list of speakers)

Aleksandr Arkhipov (US)  
 Jens Bardarson (DE)  
 Tobias Brandes (DE)  
 Iva Brezinova (AT)  
 Falk Bruckmann (DE)  
 Kieron Burke (US)  
 Predrag Cvitanovic (US)  
 Andrea Donarini (DE)  
 Thomas Engl (NZ)  
 Shmuel Fishman (IL)  
 Igor Gornyi (DE)  
 David Guéry-Odelin (FR)  
 Vincent Josse (FR)  
 Robert Keil (AT)  
 Roland Ketzmerick (DE)  
 Yoon-Ho Kim (KR)  
 Tobias Kramer (DE)  
 Thierry Martin (FR)  
 William H. Miller (US)  
 Hanns-Christoph Nägerl (AT)  
 Tõnu Pullerits (SE)

Klaus Richter (DE)  
 Marcos Rigol (US)  
 Peter Schlagheck (BE)  
 Peter Schmelcher (DE)  
 Jörg Schmiedmayer (AT)  
 Fabio Sciarrino (IT)  
 Janine Splettstoesser (SE)  
 Walter Strunz (DE)  
 Denis Ullmo (FR)  
 Rienk van Grondelle (NL)  
 Ian Walmsley (GB)  
 Mattia Walschaers (FR)  
 Thomas Wellens (DE)  
 Sandro Wimberger (IT)

### Scientific coordinators:

Andreas Buchleitner  
 Freiburg, DE  
 Juan-Diego Urbina  
 Regensburg, DE

### Organisation:

Maria de Haas  
 MPIPKS Dresden

Applications received before 6 November 2016 are considered preferentially.

Applications are welcome and should be made by using the application form on the event's web page. The number of attendees is limited. The registration fee for the international workshop is 120 Euro and should be paid by all participants. Costs for accommodation and meals will be covered by the Max Planck Institute. Limited funding is available to partially cover travel expenses. Please note that childcare is available upon request.

### For further information please contact:

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