



# **Novel Paradigms** in Many-Body Physics from Open Quantum Systems

# **International Workshop** 26 - 29 March 2018

Strongly-correlated open systems often violate fundamental rules typically governing many-body systems in thermal equilibrium. The goal of this workshop is to bring together for the first time scientists from different communities under a common denominator, this being the study of novel paradigms in many-body physics from open quantum systems. This workshop will provide an overview of the emerging concepts, possible theoretical approaches as well as experimental realisations. Apart from invited and contributed talks, the workshop will also feature introductory lectures on selected topics.

#### **Topics:**

- Exotic non-equilibrium phases and steadystates
- Collective dynamics in open quantum systems
- Phase transitions and criticality in open quantum systems
- Quench and relaxation dynamics in open quantum systems

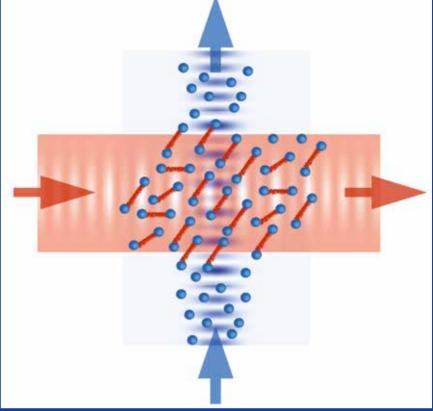


image courtesy of Francesco Piazza

## **Introductory lectures:**

Alberto Amo (FR) Michael Fleischhauer (DE) Corinna Kollath (DE) Benjamin Lev (US) Tomaž Prosen (SI) Jonathan Simon (US)

### **Invited speakers:**

Ehud Altman (US) Michael Buchhold (US) Darrick Chang (ES) Cristiano Ciuti (FR) Andrew Daley (UK) Tobias Donner (CH) André Eckardt (DE) Jonathan Keeling (UK)

Oliver Morsch (IT) Herwig Ott (DE) Hakan Türeci (US) Hendrik Weimer (DE) Martin Weitz (DE)

### Scientific coordinators:

Emanuele Dalla Torre Ramat Gan, Israel

Francesco Piazza Dresden, Germany

Sebastian Diehl Cologne, Germany

Igor Lesanovsky (UK) Mohammad Maghrebi (US) Giovanna Morigi (DE)

#### **Organisation:**

Claudia Domaschke **MPIPKS** Dresden

#### Applications received before 30 November 2017 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.

For further information please contact: Visitors Program – Claudia Domaschke MPI for the Physics of Complex Systems Nöthnitzer Str. 38, D-01187 Dresden Tel: +49-351-871-1932 Fax: +49-351-871-2199 mbpoqs18@pks.mpg.de www.pks.mpg.de/mbpoqs18/

We also offer individual fellowships (phd, postdoc, sabbatical). Applications are accepted continuously. For details, please check www.pks.mpg.de/visitors