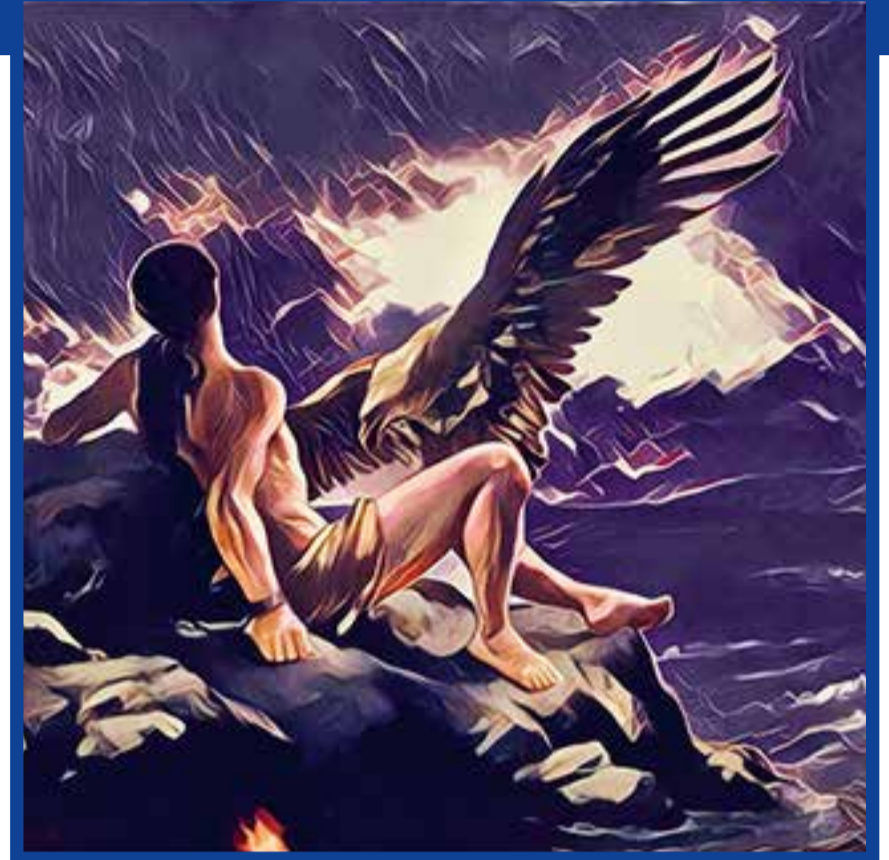




Constrained Many-Body Dynamics

International Workshop March 26 - 30, 2019

Constraints form a constitutive element of many theories of matter, such as in gauge theories in high energy and correlated electron physics, frustrated systems in condensed matter physics, or a range of archetypal models in statistical physics. At present, the dynamics in many-body systems with constraints is seeing a rapid progress, driven by developments both in theory and experiment. This workshop aims to provide a platform for discussing and advancing these developments.



Topics:

- Gauge theory dynamics
- Quantum scars
- Dynamics of spin liquids
- Kinetically constrained systems
- Confinement dynamics
- Fractons
- Many-body localization
- Disorder-free localization

Invited participants:

M.-C. Bañuls, Garching, DE
 J. Berges, Heidelberg, DE
 T. Bilitewski, Dresden, DE
 P. Calabrese, Trieste, IT
 J. Chalker, Oxford, UK
 N. Chepiga, Irvine, US
 J. Garrahan, Nottingham, UK
 A. Gorshkov, Maryland, US (tbc)
 S. Grigera, St Andrews, UK
 A. Haldar, Kolkata, IN
 V. Khemani, Boston, US
 M. Knap, Munich, DE
 I. Lesanovsky, Nottingham, UK (tbc)
 E. Lhotel, Grenoble, FR
 M. Lukin, Boston, US (tbc)
 O. Motrunich, Pasadena, US
 M. Mourigal, Atlanta, US
 S. Nakatsuji, Tokyo, JP
 S. Parameswaran, Oxford, UK (tbc)
 C. Pfleiderer, Munich, DE
 A. Polkovnikov, Boston, US
 S. Powell, Nottingham, UK (tbc)
 M. Pretko, Boulder, US
 A. Scardicchio, Trieste, IT
 M. Schulz, Trieste, IT
 M. Serbyn, Klosterneuburg, AT
 N. Shannon, Okinawa, JP

A. Smith, Munich, DE
 A. Szabó, Cambridge, UK
 A. Tennant, Oak Ridge, US
 M. Udagawa, Tokyo, JP
 E. van Nieuwenburg, Pasadena, US
 M. Vojta, Dresden, DE
 Y. Wan, Beijing, CN
 S. Zhang, Baltimore, US

Scientific coordinators:

Markus Heyl
 Dresden, Germany

Roderich Moessner
 Dresden, Germany

Frank Pollmann
 Munich, Germany

Organization:

Heike Walther
 MPI-PKS Dresden

Applications received before **Friday, February 1, 2019** are considered preferentially.

Applications are welcome and should be made by using the application form on the workshop's webpage. The number of attendees is limited. The registration fee for the international workshop is 140 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:

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