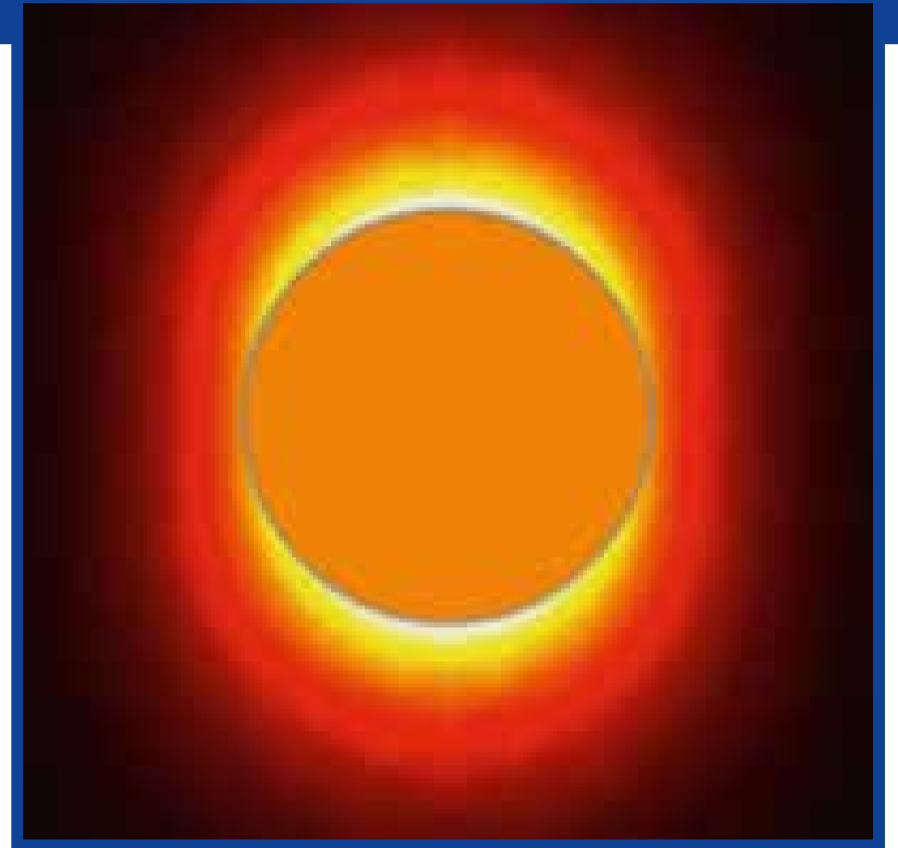




# Single Nanostructures, Nanomaterials, Aerogels and their Interactions: Combining Quantum Physics and Chemistry

## International Workshop 27 - 31 August 2018

The central topics of the workshop will be on: Assemblies of nanoscale objects, many-body interactions between building blocks in such assemblies, and resulting optical and electronic properties. This workshop on interacting nanosystems will bring together theoreticians and experimentalists in the fields of materials physics and chemistry and let them interact and exchange ideas.



### Topics

- Random, amorphous, and ordered assemblies of nanocrystal, nanocomposites and nanomaterials that demonstrate both classical and quantum properties
- Novel two-dimensional atomically-thin systems: chemistry, physics, electronics and optics
- Modern inorganic aerogels and their unusual properties
- Plasmonics, photonics and optics of nanocrystal bio-assemblies
- Dynamics of collective and many-body excitations in nanoscale systems
- Hot plasmonic electrons and other novel quantum phenomena in metal and hybrid nanostructures
- Potential applications and device ideas

### Invited speakers

Mikhail Artemyev (BY)  
Vollrath Martin Axt (DE)  
Alexander Baranov (RU)  
Rodion Belosludov (JP)  
Nadja Bigall (DE)  
Kirill Bolotin (DE)  
Garnett W. Bryant (US)  
Guido Burkard (DE)  
Alexey Chernikov (DE)  
Hilmi Volkan Demir (SG)  
Dmitry Efimkin (US)  
Alexander Efros (US)  
Steven Erwin (US)  
Anatoly V. Fedorov (RU)  
Vladimir Fomin (DE)  
Stephen Gray (US)  
Philippe Guyot-Sionnest (US)  
Thomas Heine (DE)  
Alexander Högele (DE)  
Atac Imamoglu (CH)  
Victor Klimov (US)  
Tobias Kraus (DE)  
Tilmann Kuhn (DE)

Lehui Lu (CN)  
Ermin Malic (SE)  
Gil Markovich (IL)  
Steffen Michaelis de Vasconcellos (DE)  
Fabian Mooshammer (DE)  
Markus Niederberger (CH)  
David J. Norris (CH)  
Doris Reiter (DE)  
...

### Scientific coordinators

Alexander Eychmüller  
Dresden, Germany  
  
Alexander Govorov  
Athens, USA  
  
Andreas Knorr  
Berlin, Germany

### Organisation

Katrin Lantsch  
MPIPKS Dresden

Applications received before 31 May 2018 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 – Katrin Lantsch  
MPI for the Physics of Complex Systems  
Nöthnitzer Str. 38, D-01187 Dresden  
phone: +49-351-871-1931  
fax: +49-351-871-2199  
cpqc18@pks.mpg.de  
www.pks.mpg.de/cpqc18/