

## Center for Integrated Quantum Science and Technology

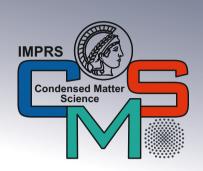
### Summer School

International Max Planck Research School for Condensed Matter Science

# Quantum Materials and Quantum Technology

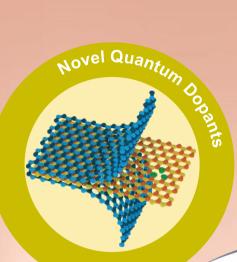
July 11 - 13, 2018 in Stuttgart, Germany







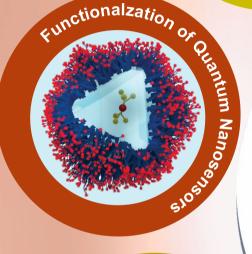






### Scope

The past decade has seen an unprecedented growth in our ability to use and control quantum states of a whole variety of different mesoscopic and macroscopic elements. It is now possible to assert individual quantum control over physical quantities such as electron/nuclear spins, microwave/optical photons, and even phonons. Yet, most achievements were reached on systems which show quantum behavior under idealized conditions, significantly restricting their application. It is therefore now time for a concerted effort to design and build universally robust quantum systems and materials in order to develop robust quantum devices and to use those for sensing, particularly in the field of biomedical analytics and imaging.





### Registration only via www.imprs-cms.mpg.de



#### Contact

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#### Scientific Organizers

Maria Daghofer and Florian Kaiser (University of Stuttgart ) Bernhard Keimer (MPI for Solid State Research)

#### Confirmed Speakers

Ali Alavi (MPI for Solid State Research), Joachim
Ankerhold (Ulm University), Stefanie Barz (University of
Stuttgart), Eva Benckiser (MPI for Solid State Research),
Bernhard Keimer (MPI for Solid State Research), Bastian Kern
(MPI for Solid State Research), Svenja Knappe (University of
Colorado Boulder), Sebastian Loth (University of Stuttgart), Jochen
Mannhart (MPI for Solid State Research), Florian Meinert (University
of Stuttgart), Ulrike Niemann (MPI for Solid State Research), Tilman
Pfau (University of Stuttgart), Martin Plenio (Ulm University),
Friedemann Reinhard (TU München), Farida Shagieva (University of Stuttgart), Joris van Slageren (University of Stuttgart),
Hidenori Takagi (MPI for Solid State Research), Jörg
Wrachtrup (University of Stuttgart)

### Participation

The school is intended for PhD students in Physics, Materials Science, Chemistry and Biomedicine, but all members of IMPRS-CMS, IQ<sup>ST</sup> and everyone interested are cordially invited to participate. Participation is free of charge but requires your registration, the latest until July 8, 2018.