Recent advances in the fabrication of solid-state systems have reached the limit where quantum effects cannot be ignored anymore. This has opened new perspectives for the development of new fundamental physics and products for commercial applications. Due to the rapid development of quantum technologies, active collaboration between theory, experiment and industry is essential to meet future demands. In solid-state quantum technologies there are a number of challenges at the level of both theory and experiment that need to be discussed openly in a platform shared by theorists, experimentalists and industry.

Topics to be discussed include (but are not limited to):
- Transport in 1D, 2D and 0D systems
- The metal–insulator transition
- Mesoscopic effects
- Quantum pumping
- Quantum and Spin Hall effect
- Spin or charge entanglement
- Topological insulators and superconductors

Invited speakers
- Karl-Fredrik Berggren, Linköping University
- Moty Heiblum, Weizmann Institute of Science
- Jainendra Jain, Penn State
- Masaya Kataoka, National Physical Laboratory
- Konstantin Matveev, Argonne National Laboratory
- Michael Pepper, University College London
- Irfan Siddiqi, University of California
- Charles Smith, University of Cambridge
- Seigo Tarucha, Tokyo University

Call for abstracts
Contributions for oral and/or poster presentations are invited. Abstracts of a maximum of 400 words including figures and references should be submitted online by 30 June 2017.

Key dates
- Abstract submission deadline: 30 June 2017
- Early registration deadline: 28 July 2017
- Registration deadline: 25 August 2017

Sponsors

Conference chair
- Sanjeev Kumar, University College London

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