The 6th Windsor Summer School

Low-Dimensional Materials, Strong Correlations, and Quantum Technologies

Cumberland Lodge, Great Park, Windsor, UK
14-26 August 2012

This School for postdoctoral and postgraduate researchers will address raising fundamental issues related to new quantum physics discovered in low-dimensional materials and nanostructures, development and studies of nanostructures for applications in quantum technologies, studies of artificial matter using cold atoms. The training programme will include lectures, tutorials, poster sessions preceded by short talks given by the attendees, and it will review of the recent progress in the theory and experiment in the following areas:

- Graphene (fundamental properties and graphene-based devices)
- Two-dimensional materials beyond graphene; topological insulators
- Theoretical techniques for strongly correlated systems: bosonisation and renormalization group; quantum phase transitions
- Spin qubits, superconducting qubits, and quantum technologies
- Trapped cold atomic gases as models for strongly correlated and disordered materials

Deadline for applications: 15 June 2012

Full-board accommodation at in shared twin room: £900. Registration fee: £100. A limited number of accommodation support grants is available, thanks to the sponsorship from the Simons Foundation, European Science Foundation, I2CAM, and Max-Planck-Institute.

www.lancs.ac.uk/depts/esqn/windsor12