

DAY 4 (26 June): 13:30 – 14:10

Topological phases of systems with time reversal symmetry

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Recently, it has been realised that certain systems with a gap which preserve time reversal symmetry can have topological phases which are analogous to the integer quantum hall states. These systems can be classified by a topological Z_2 invariant. The non-trivial topological phases of these systems have robust edge states. In this talk, some mathematical aspects of the topological classification will be reviewed and the connection with physical properties which can be experimentally detected will be discussed.