INFN
Istituto Nazionale di Fisica Nucleare
Laboratori Nazionali di Frascati

Quantum field theory aspects of condensed matter physics

CMTP
Center for Mathematics and Theoretical Physics

MIUR PRIN
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INFN - Laboratori Nazionali di Frascati
Via Enrico Fermi, 40 Frascati
aula Bruno Touschek

The bridge between Quantum Field Theory and Condensed Matter physics has been renewed by the recent discovery of Graphene, a two dimensional crystal of carbon atoms. This material has highly unusual electronic properties, as its charge carriers behave as Dirac particles.

Graphene provides an ideal laboratory to study QFT at low energies and to observe phenomena like spontaneous chiral symmetry breaking, mass generation, scale invariance, or electron fractionalization.

The meeting focuses on theoretical aspects of QFT in Condensed Matter physics, with emphasis on topics sucs as graphene, topological insulators, quantum critical points, of common interest to solid state, particle, string and mathematical physicists.

SIDS

http://agenda.infn.it/internalPage.py?pageId=0&confId=3805

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