Faculdade de Ciências da Universidade de Lisboa

Seminário do Grupo de Física Matemática

Dia 22 Janeiro 2019 (terça-feira), às 11h00, sala 6.2.33

A Gelfand-Levitan Trace Formula for Generic Quantum Graphs

Jiří Lipovský

(Department of Physics, Faculty of Science, University of Hradec Kralove)

Abstract: We generalize the result given by Gelfand and Levitan for the Schroedinger operator on a segment with Neumann coupling condition. We give a trace formula for the quantum graph with arbitrary edge lengths and generic coupling conditions. The only case of coupling conditions which is excluded is the condition with the unitary coupling matrix having eigenvalue -1 (hence it is a set of measure zero in the set of all self-adjoint couplings). However, the considered set does not include Dirichlet, standard or delta-conditions.

This is joint work with Pedro Freitas.

Local: FCUL – Edf. C6 - Piso 2, 6.2.33