

On the inverse spectral problem for quantum graphs

Marlena Nowaczyk

November 10, 2004

The inverse spectral problem for the Laplace operator on a finite metric graphs is investigated. It is shown that this problem has a unique solution for graphs with rationally independent edges and without vertices having valence 2. The talk will contain an elementary introduction into the theory of quantum graphs - ordinary differential operators defined on metric graphs. This area of mathematics combines functional analysis, discrete mathematics and mathematical physics.

This talk is based on a joint work with P.Kurasov.