

## Abstract

Georgi Raikov (Pontificia Universidad Católica de Chile)

### *Threshold Singularities of the Spectral Shift Function for Geometric Perturbations of Magnetic Hamiltonians*

*Joint with V. Bruneau*

I will consider the 3D Schrödinger operator  $H_0$  with constant magnetic field, and its perturbations  $H_+$  (resp.,  $H_-$ ) obtained from  $H_0$  by imposing Dirichlet (resp., Neumann) conditions on an appropriate surface in  $\mathbb{R}^3$ . I will introduce the Krein spectral shift function  $\xi(E; H_{\pm}, H_0)$ ,  $E \geq 0$ , for the operator pairs  $(H_{\pm}, H_0)$ , and will discuss its singularities at the Landau levels which play the role of thresholds in the spectrum of the unperturbed operator  $H_0$ .

The partial support of the Chilean Science Foundation *Fondecyt* under Grant 1170816 is gratefully acknowledged.