



THEMATIC PROGRAM IN MATHEMATICAL PHYSICS

*SPECTRAL THEORY, SEMI-CLASSICAL ANALYSIS,
AND CONDENSED MATTER PHYSICS*

Mini-Courses

November 2020 - March 2021

International Conference

Mathematics of Condensed Matter and Beyond (MCMB)

February 22-25, 2021

Monthly Seminars

Seminar by Dr. Vincent Bruneau, University of Bordeaux

Title: Spectral effect of an obstacle for the Magnetic Schrödinger operator

Date and Time: February 11, 2021

Registration Link: <https://aub.webex.com/aub/onstage/g.php?PRID=8c7d3dd8b0e25ae5bc95dad8143c465c>

Abstract:

In this talk we discuss the influence of a bounded obstacle on the spectral properties of the exterior magnetic Schrödinger operator. Depending on the boundary condition (Dirichlet / Neumann), the Spectral Shift Function (or the Scattering Phase) tends to infinity below or above the Landau levels. The first two divergent terms are independent of the perturbation while the third one involves the logarithmic capacity of the projection of the obstacle onto the plane perpendicular to the magnetic field. It is a joint work with G. Raykov.