

## Boundary states of the magnetic Robin Laplacian

*Friday, February 2, 2024 9:50 AM (30 minutes)*

In this talk, we will discuss the spectral analysis of the Robin Laplacian on a smooth bounded two-dimensional domain in the presence of a constant magnetic field. In the semi-classical limit, I will explain how to get a uniform description of the spectrum located between the Landau levels. The corresponding eigenfunctions, called edge states, are exponentially localized near the boundary. By means of a microlocal dimensional reduction, I will explain how to derive a very precise Weyl law, and also how to simultaneously refine old results about the low-lying eigenvalues in the Robin case and recent ones about edge states in the Dirichlet case.

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