

Inequalities for the lowest magnetic Neumann
eigenvalue in a planar domain (after
Fournais-Helffer)

Bernard Helffer

We study the ground state energy of the Neumann magnetic Laplacian in planar domains. For a constant magnetic field we consider the question whether, under an assumption of fixed area, the disc maximizes in the simply connected case this eigenvalue. More generally, we discuss old and new bounds obtained on this problem in the case of a variable magnetic field and also consider the non simply connected case.