

Large time behavior of the heat kernel of two-dimensional magnetic Schroedinger operators and its applications

H. Kovařík

Dipartimento di Matematica, Politecnico di Torino

We study the heat semigroup generated by two-dimensional Schroedinger operators with compactly supported magnetic field. We show that if the field is radial, then the large time behavior of the associated heat kernel is determined by its total flux. We also discuss some applications to eigenvalue estimates for magnetic Schoedinger operators in two dimensions.