

ON THE SPECTRAL THEORY OF DIRAC OPERATORS WITH A VARIABLE MASS TERM

HUBERT KALF

Hubert.Kalf@mathematik.uni-muenchen.de

Mathematisches Institut

Universität München

Theresienstr. 39

D-80333 München, Germany

The spectrum of the Dirac operator is purely discrete when the mass term “dominates” the potential (O. Yamada). In the opposite case one expects the spectrum to be purely absolutely continuous. This was proved when both the mass term and the potential are spherically symmetric (K. M. Schmidt, O. Yamada). Using virial techniques, a theorem is presented which establishes at least absence of eigenvalues when mass term and potential are not necessarily rotationally symmetric. This is joint work with T. Okaji (Kyoto) and O. Yamada (Kusatsu).