

Kempner Colloquium

THE SPECTRUM OF FAMILIES OF OPERATORS AND TOPOLOGY

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We will consider parametrized families of unbounded self-adjoint operators on a Hilbert space and their invariants. Each operator will have discrete spectrum, with infinitely many positive and negative eigenvalues of finite multiplicity. By restricting the dimension of the eigenspaces one may sometimes use algebraic topology to completely determine the family up to equivalence. Various notions related to spectral flow, the index gerbe and Berry phase play a role which will be discussed. This is joint work with Ron Douglas.

Tuesday September 6, 2011

3:00 p.m.

MATH 220