Felix Klein Seminar

Speaker: Paul Siegel
Penn State

Thursday, May 5, 2011
2:00 PM
125 Hayes-Healy Hall

Title: The Analytic Surgery Exact Sequence and Partitioned Manifolds

Abstract:

The "partitioned manifold index theorem" solves an index problem (in the sense of Atiyah-Singer) for a non-compact manifold partitioned by a compact hypersurface. I will present a new proof of this theorem based on an analytic counterpart (due to Nigel Higson and John Roe) of the surgery exact sequence in algebraic topology. Time permitting, I will also discuss some applications and generalizations of the partitioned manifold index theorem made available by this point of view.