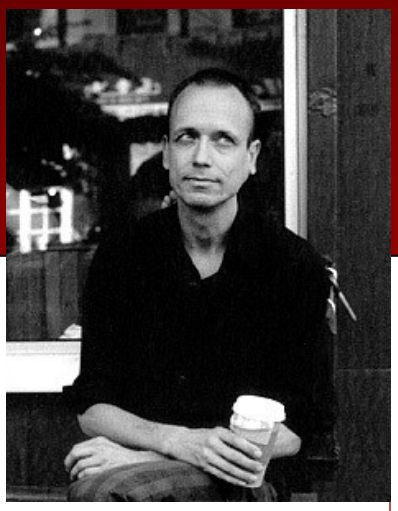
Department of Mathematical Sciences welcomes

Erik van Erp
Dartmouth College, Hanover, NH



September 14, 2018

Hosted by:
Prof. Dan Ramras &
Prof. Ron Ji

Tea begins at 3:00
in LD 259

Research Topic
begins at 3:30
in LD 229

A brief history of index theory with a footnote

ABSTRACT:

Index theory establishes deep connections between topology and analysis. I will review the historical sources for index theory. The first stream, in algebraic geometry, starts with the Riemann-Roch theorem. The second stream, in analysis, begins with the work of Fredholm on integral equations. The two streams meet and merge in the Atiyah-Singer index theorem of the early 1960s. I will then present joint work with Paul Baum as a footnote to these developments.

ABOUT THE SPEAKER:

Erik van Erp received his Ph.D. from Penn State in 2005 under the direction of Nigel Higson. He has spent most of his career at Dartmouth College, where he is currently an Associate Professor. Van Erp works in noncommutative geometry and index theory, areas at the intersection between analysis and topology.

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