WABASH
EXTRAMURAL MODERN ANALYSIS
SEMINAR

November 3

2:00 p.m.

at

Wabash College

in rooms 114 and 118 Baxter Hall

Times given are Eastern Time,
which is currently local time for Central Indiana and Ohio.

2:00–2:30	***Refreshments and conversation***
2:30–3:30	**Traceless AF embeddings and unsuspended E-theory** ***JAMIE GABE, University of Glasgow***
3:30–4:00	***More refreshments and conversation***
4:00–5:00	**The families index formula on stratified spaces** ***PIERRE ALBIN, University of Illinois at Urbana-Champaign***
5:00–...	***Refreshments and farewells***

The purpose of Wabash Seminar talks is to present surveys of interest to all analysts, including graduate students and scholars working in areas far from the speaker's specialty. Come and meet your fellow analysts, learn what's going on, and spread the word.

Next Meeting: February 2019

For further information call

Marius Dadarlat, Purdue University, (765) 494–1940
E–mail: mdd@math.purdue.edu
Web: http://www.math.purdue.edu/~mdd/Wabash/

Traceless AF embeddings and unsuspended E-theory

JAMIE GABE

A celebrated theorem of Kirchberg states that any separable, exact C^*-algebra embeds into the Cuntz algebra $\mathcal{O}_2$. In the same spirit, I have shown that a separable, exact C^*-algebra embeds into the cone $C_0((0,1],\mathcal{O}_2)$ if and only its primitive ideal space has no non-empty, compact, open subsets. Consequently, this characterises when traceless C^*-algebras are AF embeddable, and (under nuclearity assumptions) when Connes and Higson's E-theory can be unsuspended. The latter result uses recent results of Dadarlat and Pennig.

The families index formula on stratified spaces

PIERRE ALBIN

The Atiyah-Singer index theorem encodes a beautiful relation between analysis and topology. It has been extended beyond its original setting of smooth manifolds in many directions including manifolds with boundaries and corners, families of manifolds, and many non-commutative spaces. Both Atiyah and Singer suggested that the theory should be extended to stratified spaces but, after the seminal work of Cheeger, results have focused on isolated conic singularities and only recently on spaces of depth one. I will report on joint work with Jesse Gell-Redman in which we establish the families index formula for Dirac-type operators on stratified spaces of arbitrary depth.

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Cars will be leaving from the Math Sciences Building at 1:30 p.m. (sharp!).
(Meet near the elevators on the main floor.)
If you wish to ride, please tell Marius Dadarlat (Math 708; phone 41940) by Thursday, November 3.

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