WABASH
EXTRAMURAL MODERN ANALYSIS
SEMINAR

February 25

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	**Noncommutative simplices** *MARTINO LUPINI, CALTECH*
3:30–4:00	*More refreshments and conversation*
4:00–5:00	**Index Theory and Character Formula** *HANG WANG, University of Adelaide*
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: April 22

For further information call

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Noncommutative simplices

MARTINO LUPINI

I will present an overview of the study of operator systems as the noncommutative analogue of compact convex sets and Choquet simplices. This is joint work with Matt Kennedy.

Index Theory and Character Formula

HANG WANG

This talk will focus on the link between geometry and representation theory of Lie groups in the context of operator algebras. Weyl character formula describes characters of irreducible representations of compact Lie groups. This formula can be obtained using geometric method, for example, from the Atiyah-Bott fixed-point theorem. Harish-Chandra character formula, the noncompact analogue of the Weyl character formula, can also be studied from the point of view of index theory. We apply orbital integrals on K-theory of Harish-Chandra Schwartz algebra of a semisimple Lie group G, and then use geometric method to deduce Harish-Chandra character formulas for discrete series representations of G. This joint work with Peter Hochs (arXiv:1701.08479).