# WABASH
## EXTRAMURAL MODERN ANALYSIS
# SEMINAR

## April 16

**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.*

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| **2:00–2:30** | *Refreshments and conversation* |
| **2:30–3:30** | **Deformations of nilpotent groups and homotopy symmetric C*-algebras**<br>*Ulrich Pennig, Cardiff University* |
| **3:30–4:00** | *More refreshments and conversation* |
| **4:00–5:00** | **A Brief Overview of Bi-Free Probability**<br>*Paul Skoufranis, Texas A&M University* |
| **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: Miniconference IUPUI September 2016

*For further information call*

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## Deformations of nilpotent groups and homotopy symmetric C*-algebras

Ulrich Pennig

The homotopy symmetric C*-algebras are those for which one can unsuspend in E-theory. In joint work with Marius Dadarlat we develop a new condition that characterizes homotopy symmetric nuclear C*-algebras. It can be used to show that the property of being homotopy symmetric passes to nuclear C*-subalgebras and it also implies a number of other significant permanence properties. Using this new approach, one can show that the augmentation ideal I(G) of a countable discrete torsion free nilpotent group G is homotopy symmetric.

## A Brief Overview of Bi-Free Probability

Paul Skoufranis

Recently Voiculescu introduced the notion of bi-free independence as a generalization of free independence in order to simultaneously study the left and right regular representations on free products of vector spaces. In this talk, we will provide a brief overview of the current state of bi-free probability. This overview will include basic definitions, bi-free cumulants, bi-free infinitely divisible distributions, operator-valued bi-free independence, bi-free matrix models, and bi-free partial transformations.