

*Department of Mathematics*  
*University of Notre Dame*

*Topology Seminar*

**Title:** *Approximating algebraic K-theory of ring spectra*

Speaker: Gabriel Angelini-Knoll

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Department of Mathematics

Wayne State University



**Date:** Tuesday, December 13, 2016

**Location:** 258 Hurley Hall

**1<sup>st</sup> Talk:** Approximating algebraic K-theory of ring spectra, Part I

Time: 2:30 pm

Break: 3:30 pm

**2<sup>nd</sup> Talk:** Approximating algebraic K-theory of ring spectra, Part II

Time: 4:00 pm

**ABSTRACT:**

In order to understand arithmetic properties of ring spectra, which generalize rings, we need to compute invariants like algebraic K-theory. The best approach to computing algebraic K-theory in recent years is to approximate algebraic K-theory by a simpler invariant called topological Hochschild homology. Topological Hochschild homology has a rich equivariant structure that can be used to give closer and closer successive approximations to algebraic K-theory. In my talk I will survey the general theory, called trace methods, and I will describe a new tool for computing (higher order) topological Hochschild homology that is joint work with A. Salch.