

Distinguished Lecture Series

University of Notre Dame
Department of Mathematics

Wolfgang Lück - University of Bonn, Germany

Speaker: Wolfgang Lück

University of Bonn, Germany

Will give a lecture entitled

L^2 -Betti numbers and their applications III

Date: Thursday, April 11, 2019

Time: 3:00 PM

Location: 129 Hayes-Healy Hall



Abstract:

In the third lecture we will explain how one can approximate L^2 -Betti number by classical Betti numbers. Then we will introduce the generalized Murray-von Neumann dimension which allows to define L^2 -Betti numbers for arbitrary G -spaces and in particular for arbitrary groups. This is used to explain how some of the results stated in the first lecture can be proven using L^2 -methods. Finally we give a brief outlook of the overwhelming variety of other L^2 -invariants, prominent results and open problems.