University of Notre Dame Department of Mathematics

SPECIAL LECTURE SERIES

Moritz Groth

University of Bonn, Germany

Will give a lecture entitled:

A Short Course on ∞-Categories

On

Wednesday, September 8, 2010

At

1:45 A~~M~~ **PM**

In

258 Hurley Hall

Abstract

Talk 3: We sketch the ideas leading to a proof that 'nice model categories and nice ∞–categories do the same job'. In classical category theory, presheaf categories have the universal property of being free cocompletions. The so-called accessible localizations thereof give the important class of presentable categories. Both of these two classes have counterparts at the level of model categories and ∞–categories and similar classification results at the different levels culminate in a proof of the comparison theorem.