## 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

Tuesday, September 7, 2010

At

9:30 AM

In

258 Hurley Hall

## **Abstract**

Talk 2: The main aim of this talk is the extension of some central notions from classical category theory to  $\infty$ -category theory. Most important are the notions of limits and colimits. However, these can only be defined after having established some intermediate notions as there are the join and slice constructions and initial and final objects. Along the way we will see that these notions give back the old ones when applied to nerves of ordinary categories.