Gromov-Witten vs Donaldson-Thomas Invariants Seminar

UNIVERSITY OF NOTRE DAME
Department of Mathematics

Speaker: Feng Wang
Peking University

Tuesday, April 10, 2012
1:00 PM
205 DeBartolo Hall

Title: Symmetric obstruction theory and microlocal geometry

Abstract:

Continuation from last time. Given a moduli functor which is representable by a Deligne-Mumford stack, if we suppose the stack has the so called perfect obstruction theory, we can define the virtual cycle the integration over which will give us some invariants. The Gromov-Witten invariant and Donaldson-Thomas invariant are both defined this way. I want to talk about the relation betwenn this virtual cycle and the Euler characteristics of the stack in the case of symmetric perfect obstrucion theory. The "Euler characteristics" is defined by K. Behrend. Apart from the fundamental properties mentioned by N. Budur in the introdution, I will give some concrete examples to calculate the Euler characteristics.