



Speaker: Gabor Szekelyhidi
University of Notre Dame

Friday, September 23, 2011
4:00 pm
231 Hayes-Healy Hall

Title: Extremal Kahler metrics

Abstract:

I will first give a brief introduction to quotient constructions in algebraic and symplectic geometry, and the beautiful relationship between them. I will then explain an infinite dimensional picture where this relationship is conjectured to hold, and which leads to the notion of extremal metrics on Kahler manifolds.

Speaker: Alex Himonas
University of Notre Dame

Friday, September 23, 2011
4:45 pm
231 Hayes-Healy Hall

Title: Water Wave Equations

Abstract:

Abstract: Focusing on the Korteweg-de Vries (KdV) and the Camassa-Holm (CH) equations we shall present a few ideas and techniques for solving partial differential equations. KdV was derived in 1895 as a model of long water waves propagating in a channel. Since then it has reappeared in many other areas of mathematics and its applications and has been a favorite subject of study by mathematicians of all kinds. It possesses traveling wave solutions (solitons) having many interesting properties. However they never break! The search for a water wave equation having traveling wave solutions that break led to the discovery of the CH equation.

There will be pizza provided by the department following the lectures.