Speaker: Nam Le
Indiana University, Bloomington

Thursday, March 17, 2016
2:00 PM
125 Hayes-Healy Hall

Title: Global smoothness of the Monge-Ampere eigenfunctions

Abstract:

In this talk, I will first introduce the eigenvalue problem for the Monge-Ampere operator . This problem was first investigated by P. L. Lions in 1985 and has since found many geometric applications including Brunn-Minkowski inequality for convex bodies. Then, I will discuss global smoothness of the eigenfunctions of the Monge-Ampere operator on smooth, bounded and uniformly convex domains in all dimensions. A key ingredient in our analysis is boundary Schauder estimates in degenerate metrics for certain degenerate Monge-Ampere equations. This is joint work with Ovidiu Savin.