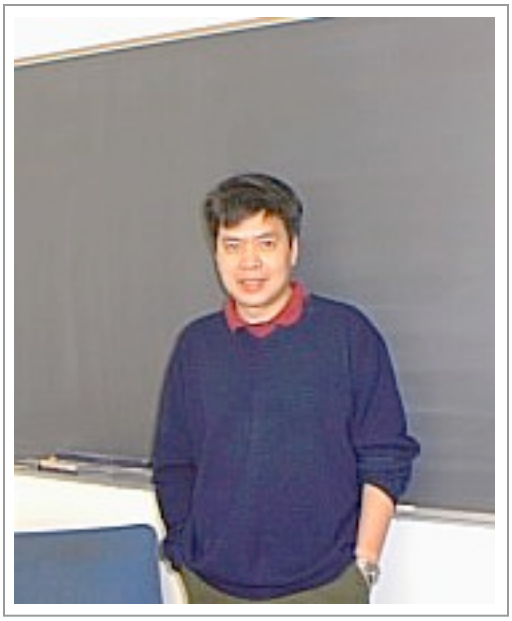
The Oliver Club

www.math.cornell.edu/~oliver/

Doung H. Phong, Columbia University

The Complex Monge-Ampere Equation

Monge-Ampere equations are partial differential equations whose leading term involves the determinant of the Hessian of the unknown function. These equations play an important role in geometry, because fundamental geometric notions (such as volumes and curvatures) are given in various contexts by determinants of Hessians. In particular, the complex Monge-Ampere equation is of considerable interest in Kähler geometry. We provide a survey of some recent developments, including estimates, regularity and uniqueness of solutions of this equation, and relations to the open problem of finding Kähler metrics with constant scalar curvature.



Thursday, April 29, 2010
at 4:25 PM in 406 Malott Hall

Refreshments will be served at 3:55 PM in the Mathematics Department lounge (532 Malott Hall).