SPECIAL LAGRANGIAN AND QUADRATIC HESSIAN EQUATIONS

Speaker: Yu Yuan
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Time: Tue, Mar. 24th, 10:00 - 11:00
Venue: Room 102, SCMS
Abstract:

We survey some new and old, positive and negative results on a priori estimate, regularity, rigidity, and constant rank results for special Lagrangian and quadratic Hessian equations. These equations originate in calibrated, convex, conformal, and complex geometries among other fields. Unlike all other order Hessian equations such as the linear (Laplace) and top order (Monge-Ampere) equations, the regularity/irregularity and a priori Hessian estimates for these two equations have not been settled yet in five and higher dimensions.