DIFFERENTIAL GEOMETRY/PDE SEMINAR

Wednesday, May 9, 2007 Padelford C-36 3:50-5pm

Hessian estimates for special Lagrangian equations

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We review some recent results on Hessian estimates for solutions of special Lagrangian equations in dimensions two and three, including the sigma-2 equation in dimension three. The gradient graph of such a solution is a minimal Lagrangian surface. In the 1950's Heinz proved an implicit Hessian estimate for the sigma-2 (Monge-Ampere) equation in dimension two. In the 1970's, Pogorelov constructed his famous counterexamples, showing that Hessian estimates for the the sigma-3 (Monge-Ampere) equation do not exist. This is joint work with Yu Yuan.

For more information about this seminar, visit the DG/PDE Seminar Web page (from the Math Department home page, www.math.washington.edu, follow the link Seminars, Colloquia, and Conferences).

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