

Monge-Ampere techniques for quasi-conformal mappings

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We exploit the geometric approach to the study of the Monge-Ampere equation, as developed by L. Caffarelli during the 90's, to characterize quasi-conformal mappings with convex potentials. This leads to a way to construct such mappings and extend the family of weights for which the quasiconformal Jacobian problem has solutions. This is a joint project with Leonid Kovalev from Texas A&M and Jang-Mei Wu from Urbana-Champaign.

The talk will be in Vincent Hall 570 at 3:35 pm