

## **abstract**

MINI-COURSE IN GEOMETRIC PDE

Topic:

Speaker:

Affiliation:

Date:

Time/Room:

---

In these lectures we will describe the relationship between optimal transportation and nonlinear elliptic PDE of Monge-Ampere type, focusing on recent advances in characterizing costs and domains for which the Monge-Kantorovich problem has smooth diffeomorphism solutions.

Background references.

L. C. Evans, PDE and Monge-Kantorovich mass transfer. Current developments in Mathematics, 1997. Int. Press, Boston, (1999).

R. T. Rachev and L. Ruschendorf, Mass transportation problems, Springer, 1998.

J. Urbas, Mass transfer problems, Lecture Notes, Univ. of Bonn, 1998.

C. Villani, Topics in optimal transportation, Amer. Math. Soc. 2003.