GEOMETRIC MEASURE THEORY OPTIMAL MASS TRANSPORTATION AND PARTIAL DIFFERENTIAL EQUATIONS

Inside and around optimal transport

FILIPPO SANTAMBROGIO

Université Paris-Sud

Topics:

- 1. Introduction to optimal transport, duality and strictly convex costs.
- 2. One-dimensional transport, Knothe map and applications.
- 3. Concave and L^{∞} transport costs.
- 4. Traffic congestion, optimal flows and very degenerate elliptic PDEs.
- 5. Branched transport.