Globally Lipschitz (non-optimal) transport maps

Max Fathi
Université Paris Cité, France
max.fathi@u-paris.fr

Lipschitz transport maps allow to transfer functional and isoperimetric inequalities, such as logarithmic Sobolev inequalities, from one probability measure to another. For uniformly log-concave measures on Euclidean spaces, this can be done using quadratic optimal transport, thanks to Caffarelli's contraction theorem. In this talk, I will discuss a stochastic construction of Lipschitz transport maps due to Kim and Milman, and how it works in other settings, including some non-log-concave measures and Riemannian manifolds.

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