ID de Contribution: **4** Type: **Non spécifié**

4th talk: Weak optimal transport and applications to Caffarelli contraction theorem.

jeudi 4 juillet 2019 16:30 (50 minutes)

The talk will deal with a variant of the optimal transport problem first considered in a joint paper with C. Roberto, P-M Samson and P. Tetali, where elementary mass transports are penalized through their barycenters. The talk will in particular focus on a recent result obtained in collaboration with N. Juillet describing optimal transport plans for the quadratic barycentric cost. A direct corollary of this result gives a new necessary and sufficient condition for the Brenier map to be 1-Lipschitz. Finally we will present a recent work in collaboration with M. Fathi and M. Prodhomme, where this contractivity criterion is used to give a new proof of the Caffarelli contraction theorem, telling that any probability measure having a log-concave density with respect to the standard Gaussian measure is a contraction of it.

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