

Bi-Lipschitz embeddings of measures with partial transportation distances

Friday, August 30, 2024 9:15 AM (1 hour)

The question of bi-Lipschitz embeddability of Wasserstein spaces into classical Banach spaces has attracted much attention. The importance of such embeddings can be seen, for instance, in the proof of Almgren's partial regularity theorem.

In optimal transport, Wasserstein distances are the prime examples transportation metrics to compare measures of the same total mass. This talk will consider the partial transportation metric defined by Figalli and Gigli, which removes this mass constraint. We will begin with the definition of these spaces and discuss new relationships with other transportation metrics. We will then present new results regarding their bi-Lipschitz embeddability into Hilbert space. This is joint work with D. Bate.

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