Functional Analysis and Operator Theory
Webinar

Obstructions to bi-Lipschitz embeddings between Wasserstein spaces

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Given a complete metric space X, one can build its "Wasserstein space" $W_p(X)$ of exponent p: a complete metric space whose points are the probability measures on X with finite p-th moment. In this talk, we will consider whether one can prove that when X is "too big" to admit a bi-Lipschitz embedding in some other space Y, then $W_p(X)$ is also "too big" to admit a bi-Lipschitz embedding in $W_p(Y)$. This can in some situations be accomplished by constructing bi-Lipschitz invariants that are suited to spaces as huge as Wasserstein spaces. Along the way, we shall encounter Caratheodory's construction for the Hausdorff dimension, ultrametric skeletons, and an intriguing open question.

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28 April 2021, 12:00 London time

You can join the event via this link:
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