

Colloquium

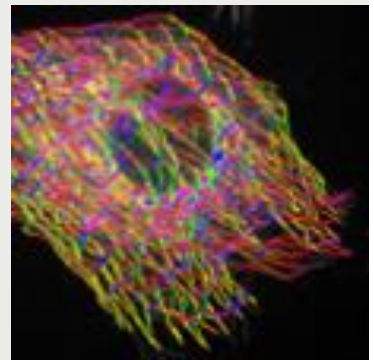
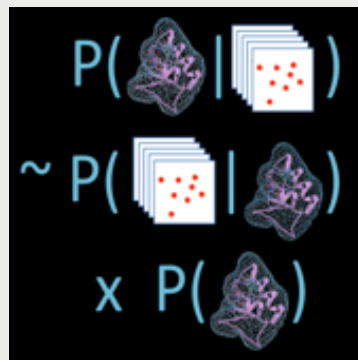
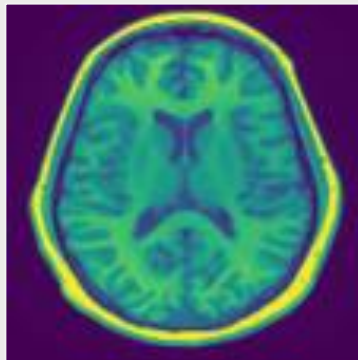
Statistical optimal transport in high dimension

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Abstract

The Wasserstein distances W_p are measures of similarity between probability distributions that have found numerous applications in machine learning. For example, Wasserstein Generative Adversarial Networks are able to generate realistic fake images by approximating a training sample of n images with respect to W_1 . From a statistical perspective, the question of the estimation in high dimension of quantities related to the optimal transport problem is then raised. We will present two settings where one can bypass the curse of dimensionality: first, in the case where the target distribution is supported on a low-dimensional manifold, and second, in the case where the target distribution is the pushforward of a fixed source measure by some input convex neural network.



Monday May 23, 2022, 16:15

Institute for Mathematical Stochastics
Seminar room (5.101) - North Campus - Goldschmidtstraße 7

Host: Axel Munk
Institute for Mathematical Stochastics

