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Entropic optimal transport is maximum-likelihood deconvolution. (Le transport optimal entropique correspond à l'estimateur du maximum de vraisemblance en déconvolution.)

(English. French summary) [Zbl 1407.62211]


Summary: We give a statistical interpretation of entropic optimal transport by showing that performing maximum-likelihood estimation for Gaussian deconvolution corresponds to calculating a projection with respect to the entropic optimal transport distance. This structural result gives theoretical support for the wide adoption of these tools in the machine learning community.

MSC:
62H20 Measures of association (correlation, canonical correlation, etc.)
68T05 Learning and adaptive systems in artificial intelligence
82C70 Transport processes in time-dependent statistical mechanics

Keywords:
statistical interpretation; entropic optimal transport; maximum-likelihood estimation; Gaussian deconvolution; machine learning

Software:
EMD

Full Text: DOI arXiv

References:


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