



Seminar/Talk

Theoretical guarantees of convergence for Sinkhorn's algorithm and the iterative Markovian Fitting procedure

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Host: Jan Maas /Filippo Quattrocchi

In this talk, I will survey some recent progresses in the field of entropic optimal transport (a.k.a. Schrödinger problem). More precisely I will focus on results providing theoretical guarantees of convergence for the most popular algorithms employed to compute approximate solutions in machine learning applications, namely Sinkhorn's algorithm and the iterated Markovian fitting algorithm. In particular, I will develop the connection between smoothness of entropic potentials, stability of optimal solutions and exponential convergence in the number of iterations. The theoretical results will be illustrated in some concrete examples, such as log-concave marginals and marginals with bounded support, where the exponential rates are shown to have an optimal dependence on the regularization parameter. Based on joint work with A. Chiarini, A. Durmus, M. Gentiloni, G. Greco, L. Tamanini.

Tuesday, November 4, 2025 04:15pm - 05:15pm

Office Bldg West / Ground floor / Heinzl Seminar Room (I21.EG.101)



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