PIMS / AMI Seminar

Friday, August 30, 2019
3:00 p.m.
SAB 326

"Grand Canonical Optimal Transport"

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Abstract

In this talk I will firstly review standard Multimarginal Optimal Transport (a fixed number N of marginals is fixed) focusing, in particular, on the applications in Quantum Mechanics (in this case the marginals are all the same and represent the electrons of a an atom or a molecule). I will then extend the Optimal Transportation problem to the grand canonical setting: only an average number of marginals is now given (i.e. we can now define a OT problem with a fractional number of marginals). I will compare these two problems and show how they behave differently despite considering the same cost functions. Some numerical results will be finally presented.

This is a joint work with S. Di Marino and M. Lewin.