PIMS / AMI Seminar

Friday, July 13, 2018
3:00 p.m.
CAB 5-72

"From Schrödinger to Lasry-Lions via Brenier"

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Abstract

The minimization of a relative entropy (with respect to the Wiener measure) is a very old problem which dates back to Schrödinger. C. Léonard has established strong connections and analogies between this problem and the Monge-Kantorovich problem with quadratic cost (namely the standard Optimal Transport problem). In particular, the entropic interpolation leads to a system of PDEs which present strong analogies with the Mean Field Game system with a quadratic Hamiltonian. In this talk, we will explain how such systems can indeed be obtained by minimization of a relative entropy at the level of measures on paths with an additional term involving the marginal in time. Connection with generalised solutions (à la Brenier) for incompressible fluids will also be discussed.