



UC|UP MATH PhD Program

Research Seminar Program UC|UP Joint PhD Program in Mathematics

Date and Time. November 19, 2015 - 14h30

Place. Room M031, Department of Mathematics, University of Porto

Speaker. Luigia Ripani ¹

Title. Analogies between optimal transport and minimal entropy

Abstract. The Schrödinger problem is an entropic minimization problem and its a regular approximation of the Monge-Kantorovich problem, at the core of the Optimal Transport theory.

In this talk I will first introduce the two problems, then I will describe some analogy between optimal transport and the Schrödinger problem such as a dual Kantorovich type formulation, the dynamical Benamou-Brenier type representation formula, as well as a characterization formula and some properties of the respective solutions.

Finally I will mention, as an application of these analogies, some contraction inequalities with respect to the entropic cost, instead of the classical Wasserstein distance.

¹Luigia Ripani is a PhD student at Institut Camille Jordan - Universit Claude Bernard Lyon 1, France and working in the area of "PDE, Analysis" under the supervision of Prof. Ivan Gentil and Prof. Christian Lonard.