Constrained Optimal Transport

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In this talk, we study the classical duality theory of Kantorovich in a general Banach lattice framework with order unit. The primal problem is stated on the unit sphere of the topological dual of this Banach lattice and the dual problem is stated on its bidual. We give functional analytical necessary and sufficient conditions on the class of ""hedges"" for the duality to hold. In particular, we give an alternative proof of Kellerer's classical duality result without using Choquet Theorem.

The talk is based on joint work with H. M. Soner.