DK Seminar

December 10, 2014
14:00 - 15:30
University of Vienna,
Faculty of Mathematics, OMP 1, HS 2

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Applications and generalizations of optimal transport

In this talk I will introduce an optimal transport problem and will discuss its connection to the model independent pricing. While one tries to minimize/maximize the cost in the transport case under producer/customer constraints, the goal in finance is to determine minimal/maximal prices consistent with market data. Mathematically the problems are very similar with the single and important difference: the martingale property in the financial context. All these connections will be illustrated on the example of Asian option pricing problem. As another application of optimal transport ideas, I will introduce causal transference plans. I will discuss its relation to stochastic differential equations as well as some open problems.