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Einladung zum Oberseminar Stochastik

Am Donnerstag, 03. Mai 2018, um **14:00 Uhr**, im Seminarraum 2 des Mathematischen Instituts (Raum 204), Weyertal 86-90, 50931 Köln spricht:

Prof. Dr. Martin Huesmann
(Universität Bonn)

zum Thema

The matching problem: macroscopic and microscopic behaviour

In this talk, we consider the matching problem between the Lebesgue measure and n iid uniformly distributed point masses on the unit cube. Whereas the order of the asymptotic L^2 transport cost are known since the seminal work of Ajtai-Komlos-Tusnady, the microscopic behaviour of the optimal couplings is less clear.
We explain how a slightly relaxed version of this problem converges to a stationary coupling between the Lebesgue measure and the Poisson point process on $\mathbb{R}^d$ provided $d \geq 3$. Then, we present a local transport cost estimate on $\mathbb{R}^2$ which shows in a quantitative way that the optimal couplings are close to the identity plus a shift. This allows us to construct a locally optimal transport map from Lebesgue to Poisson on $\mathbb{R}^2$ which is not stationary but which has (in a certain sense) stationary increments.
Based on joint work with Theo Sturm and Michael Goldmann & Felix Otto.

Alle Interessenten sind herzlich eingeladen.
Die Dozenten der Stochastik