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10. April 2012

Einladung zum Vortrag

von

Dr. Youri Davydov
UNIVERSITÉ LILLE, FRANCE

On convex hulls of sequences of stochastic processes

Let T be a separable metric space. Let $X_i = \{X_i(t),\ t \in T\}$ be i.i.d. copies of a process $X = \{X(t),\ t \in T\}$ with values in $\mathbb{R}^d$. Assume that X has a.s. bounded paths and consider the convex hulls

$$W_n = \{\{\, X_1(t), \ldots, X_n(t),\ \ t \in T\}. \tag{1}$$

We are studying the existence of a limit shape W for the sequence $\{W_n\}$ normalised by appropriate constants b_n.

We show that in Gaussian case W_n/b_n converges a.s. to W which is nonrandom, whereas for the processes satisfying a regular variation condition the convergence is in law and the limit set W in many cases is a random polytope.

Termin: Dienstag, 29. Mai 2012, 17:15 Uhr

Ort: Universität Ulm, Helmholtzstr. 18, Raum 220

Interessenten sind herzlich eingeladen. Der Vortrag findet im Rahmen des Mathematischen Kolloquiums statt.

gez. E. Spodarev