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Einladung zum Vortrag

von

Dr. Dmitry Zaporozhets

STEKLOV INSTITUTE OF MATHEMATICS, ST. PETERSBURG, RUSSIA

26. Juni 2013

Gaussian Processes and Intrinsic Volumes

Joint work with Zakhar Kabluchko (Ulm University).

We start with an example. Let $\xi_1, \xi_2, \ldots, \xi_n$ be independent standard Gaussian random variables. Put

$$M_n = \max_{k=1,\ldots,n} \xi_k.$$

It is well known from the theory of extreme values that

$$\mathbf{E}\,M_n = \sqrt{2\log n} \cdot (1 + o(1)), \quad n \to \infty.$$

On the other hand, $\sqrt{2\pi}\mathbf{E}\,M_n$ coincides with a mean width of a regular n-dimensional simplex, which is a simple corollary from much more general result due to Sudakov and Tsirelson. This gives an asymptotic of a mean width of a regular n-dimensional simplex as $n \to \infty$, which is known from the direct geometrical reasoning.

Based on this simple example, we will discuss a general approach which can be deduced from the results of Sudakov and Tsirelson.

Termin: Freitag, 28. Juni 2013, 10:00 Uhr c.t.
Ort: Universität Ulm, Raum H7 in O25

Interessenten sind herzlich eingeladen. Der Vortrag findet im Rahmen unseres Forschungsseminars statt.

gez. E. Spodarev