Einladung zum Vortrag

von

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On a functional central limit theorem for the surface areas of Gaussian excursion sets

Excursion sets of Gaussian random fields arise in many spatial stochastic models. During recent decades, they have been studied thoroughly by many authors. In particular much attention was drawn to the geometrical features of these random sets, such as volume or Euler characteristics. Many results concern the calculation of their expectations and higher order moments, as well as asymptotic normality and the behaviour at high levels. However it is natural also to study random processes which appear if all the levels are considered simultaneously. This problem was not addressed until recent times for geometrical functionals other than volumes. We give a functional central limit theorem for Hausdorff measures of the level sets of a Gaussian random field (i.e. surface areas of the excursion sets). The main ideas of the proof will be also discussed. They generalize a relatively simple argument which can be used to prove the known analogous results concerning the Lebesgue measures.

Termin: **Mittwoch, 24. Oktober 2012, 10 Uhr, c.t.**

Ort: **Universität Ulm, Helmholtzstr. 22, Raum E19**

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

gez. E. Spodarev