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22. Februar 2008

Einladung zum Vortrag

von

Prof. Dr. Jonathan Taylor
STANFORD UNIVERSITY, UNITED STATES

The integral geometry of random level sets

In various scientific fields from astrophysics to neuroimaging, researchers observe entire images or functions rather than single observations. The integral geometric properties, notably the Euler characteristic of the level/excursion sets of these functions, typically modelled as Gaussian random fields, have found some interesting applications in these domains. In this talk, I will describe some of the integral geometric properties of these random sets, particularly their Lipschitz-Killing curvature measures. I will focus on describing the results, as well as providing details for a class of non-Gaussian random fields (built up of Gaussians) which highlights the relation (which we refer to as a Gaussian Kinematic Formula) between their Lipschitz-Killing curvature measures and the classical Kinematic Fundamental Formulae of integral geometry.

Termin: Dienstag, 11. März 2008, 16:15 Uhr

Ort: Universität Ulm, Helmholtzstr. 18, Raum He 120

Interessenten sind herzlich eingeladen.

gez. E. Spodarev