Fakultät für Mathematik und Informatik

Institut für Mathematik

Seminar zur Stochastik

Dienstag, 25. Oktober 2016
14 Uhr c. t.
HS 4, Abbeanum

Herr Dr. Alexey Rudenko
(National Academy of Sciences, Kiev, Ukraine)

„The renormalized local time for Levy area of the increments of two-dimensional Brownian motion "

Abstract: It is well-known that the existence of local times for Markov processes can be related to some properties of their transition functions. For the solutions of a class of SDE this relationship can be extended to include also renormalized local times, defined as a limit of the usual local time approximations minus their mathematical expectation. Consequently we can obtain the existence of renormalized local time for Levy area of the increments of two-dimensional Brownian motion, using estimates for the density of Brownian motion on Carnot group. This result resembles the well-known result about the existence of self-intersection local time for two-dimensional Brownian motion.

Alle Interessenten sind herzlich eingeladen!

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