Seminar of Probability and Stochastic Process

Wednesday, 6th July, from 15h00
MA A3 30, EPFL, Ecublens

Prof. Thorsten Rheinlaender

TU Wien

Brownian Trading Excursions.

Abstract:

We study the stochastic heat equation with multiplicative noise and link it to the volume order distribution in a limit order book model. In particular, this allows us to derive the solution as a functional of Brownian local time. Specializing to the fundamental Dirac solution, different trading times are defined and studied via excursion theory. The distribution of order avalanches will be computed which generalises certain results about Parisian options. Joint work with Friedrich Hubalek and Paul
Krühner.

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