НАЦИОНАЛЕН СЕМИНАР ПО СТОХАСТИКА

секция „Изследване на операциите, вероятности и статистика“

Поредната сбирка на *Националния семинар по стохастика* ще се проведе на **20 октомври 2021** г. (сряда) от **14:00** часа в платформата Zoom. Доклад на тема:

"Brownian Motion Conditioned to Spend Limited Time Below a Barrier"

ще изнесе Dominic T. Schickentanz (Technical University of Darmstadt, Germany).

Abstract: We condition a Brownian motion with arbitrary starting point $y\in \mathbb{R}$ on spending at most 1 time unit below 0 and provide an explicit description of the resulting process. In particular, we provide explicit formulas for the distributions of its last zero $g=g^y$ and of its occupation time $\Gamma=\Gamma^y$ below 0 as functions of y. This generalizes a result of Benjamini and Berestycki from 2011, which covers the special case y=0. Additionally, we study the behavior of the distributions of g^y and Γ^y, respectively, for $y \to \pm\infty$.

This is joint work with Frank Aurzada.