



Mathematisches Kolloquium

Am Freitag, dem 23. April 2021, spricht um 14 Uhr c.t. via [Zoom](#)

Prof. Dr. Stefan Geiss
Universität Jyväskylä,

über das Thema:

**Gradient estimates on the Lévy-Itô space, Hölder spaces, and
Riemann-Liouville operators**

Abstract:

In a stochastic framework we consider the interplay between Riemann-Liouville operators applied to right-continuous stochastic processes with left limits, real interpolation, and bounded mean oscillation. We discuss some of these connections for Hilbert space valued gradient processes on the Lévy-Itô space appearing from non-local partial integro-differential equations with a Hölder terminal condition. We prove upper and lower bounds for these gradients that depend on the direction in which the gradient is inspected. The quantitative behavior of these directional gradients is needed for applications of Galtchouck-Kunita-Watanabe projections.

This is joint work with Thuan Nguyen (Saarland University).

Der Gast wird von Prof. Dr. Christian Bender betreut.

Alle Interessenten sind zum Vortrag herzlich eingeladen.

Die Dozenten der Mathematik