

FIM Nachdiplomvorlesung

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Rough Analysis and Applications

26 February - 27 May 2020

Wednesdays, 10:15 - 12:00

HG G 43, ETH Zürich, Rämistrasse 101

Abstract

We plan to discuss: the algebra of iterated integrals, signatures and expected signatures, rough paths and models; Kolmogorov type criteria; Schauder estimates; p -variation, abstract Riemann-Stieltjes integration (Sewing); rough integration and reconstruction; a paracontrolled view; rough differential equations and flows; rough transport equations; second order rough partial differential equations; rough volatility; a regularity structure view; large deviations and precise asymptotics for rough volatility.

A good part of the lecture will follow F-Hairer (2014,2020).

www.fim.math.ethz.ch/activities/nachdiplom-lectures

