



Leibniz
Universität
Hannover

Oberseminar Analysis und Theoretische Physik

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Leibniz Universität Hannover

Optimal stopping with signatures

The optimal stopping problem is a classical problem in stochastic analysis with various applications, especially in financial mathematics. Due to its practical relevance, numerical methods to solve the problem are of particular interest. Although there are many strategies available for Markov processes nowadays, solving the optimal stopping problem for non-Markov processes is much less studied. However, non-Markovian price processes play a more and more prominent role in financial mathematics (i.e. under the name "rough volatility models"), and finding more general methods becomes increasingly important. In this talk, I will present a strategy which combines ideas from rough path analysis, in particular the signature, and deep learning to solve the optimal stopping problem for non-Markovian stochastic processes efficiently.

Joint work with Ch. Bayer, P. Hager, and J. Schoenmakers.

**Dienstag, 2.11.2021, 15:00 Uhr, Raum c311
Hauptgebäude der Leibniz Universität**

Dazu laden herzlich ein:

Prof. Dr. Wolfram Bauer, Prof. Dr. Joachim Escher, Prof. Dr. Johannes Lankeit,
Prof. Dr. Elmar Schrohe, Prof. Dr. Christoph Walker