Conference Pathwise Stochastic Analysis and Applications

CIRM (Marseille, France) — March 8-12, 2021

Organized by GdR TRAG (INSMI-CNRS)

Sebastian Riedel (TU Berlin)

Optimal stopping with signatures

We consider the optimal stopping problem for a continuous stochastic process adapted to a filtration generated by a random rough path. We can reformulate the problem in terms of the signature of the rough path which allows for an efficient calculation. Our approach is very general and can be used for a large class of stochastic processes. In particular, it can be used to solve the optimal stopping problem for a fractional Brownian motion.
