Conference Pathwise Stochastic Analysis and Applications CIRM (Marseille, France) — March 8-12, 2021 Organized by GdR TRAG (INSMI-CNRS)

Adeline Fermanian (Sorbonne Université)

A statistical point of view on signatures

We will be concerned with the application of signatures to machine learning and statistics. The basic principle of the signature method is to represent multidimensional paths by a graded feature set of their iterated integrals, called the signature. After a general overview of signatures in machine learning, we will focus on two specific problems: estimation in a linear regression setting and building a canonical signature pipeline for time series classification.