

Sam Cohen

Title: The ASLSD method for linear Hawkes calibration

Abstract: Calibrating Hawkes processes to large amounts of data is a challenging problem. In this talk, we will consider a family of methods arising from stochastic gradient descent, which are suitable for general semiparametric linear Hawkes processes, with time and state dependent components. These methods are designed to be used on arbitrary amounts of data, can calibrate efficiently, and retain interpretability of the outputs. They also perform well on multivariate examples. In this talk, we will discuss the general approach and its implementation, and give some representative examples to demonstrate performance.