Modified Multivariate Hawkes Process for Brain Temporal Networks

Jaehee Kim

Duksung Women's University, South Korea jaehee@duksung.ac.kr

Hawkes first proposed the linear Hawkes process (Hawkes, 1971) to model earthquakes and their aftershocks. We review linear, nonlinear, high dimensional, and spatial Hawkes processes and develop a modified Hawkes process for the brain's temporal networks.

Funding: This work was supported by the National Research Foundation of Korea (NRF) grant (BRL No. 2021R1A4A5028907) and Basic Research (No. 2021R1F1A1054968).