

The Chinese University of Hong Kong Department of Statistics

Seminar

A New Point Process Model with Application to Social Media User Content Generation

By

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Abstract

In this paper, we propose a new class of point process models to model the activity patterns of social media users. The proposed class of models has the flexibility to accommodate the complex behaviors of modern social media users and to provide straightforward insight into users' online content generating behavior. A composite likelihood approach and a composite likelihood EM procedure are developed to overcome the challenges in parameter estimation. We show the consistency and asymptotic normality of the maximum composite likelihood estimator. The effectiveness of the proposed method is demonstrated through simulation studies. In an application to real social media data, we find interesting subgroups of users with distinct behaviors. Furthermore, we discuss the effect of social ties on a user's online content generating behavior.

Date: June 22, 2018 (Friday) Time: 2:30 p.m. - 3:30 p.m.

Venue: Liang Y C Hall - LHC Room 103

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