SCMS Seminar

FOURIER ANALYSES OF EXTREMAL EVENTS

Speaker: Dr. Yuwei Zhao

Time: 10:30 a.m.-11:30 a.m., Tuesday, March 28th, 2017
Venue: Room 2201, East Guanghua Tower (Main), Fudan University

Abstract:

We investigate the asymptotic properties of the integrated periodogram calculated from a sequence of indicator functions of dependent extremal events. An event in Euclidean space is extreme if it occurs far away from the origin. We use a regular variation condition on the underlying stationary sequence to make these notions precise. The functional central limit theorem for the integrated periodogram of the indicator functions of dependent extremal events is proved, which is then used to construct the goodness-of-fit tests. We also propose a Whittle estimation procedure with its applications to simulated data sets.

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