



The Chinese University of Hong Kong  
Department of Statistics

## Seminar

### Change-point detection for COVID-19 time series via self-normalization

By

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#### Abstract

This talk consists of two parts. In the first part, I will review some basic idea of self-normalization (SN) for inference of time series in the context of confidence interval construction and change-point testing in mean. In the second part, I will present a piecewise linear quantile trend model to model infection trajectories of COVID-19 daily new cases. To estimate the change-points in the linear trend, we develop a new segmentation algorithm based on SN test statistics and local scanning. Data analysis for COVID-19 infection trends in many countries demonstrates the usefulness of our new model and segmentation method.

Date: June 1, 2021 (Tuesday)

Time: 9:00 a.m. - 10:00 a.m.

Venue: via Zoom

Meeting ID: 966 9370 0564

Passcode: 404096

Join Zoom Meeting:

<https://cuhk.zoom.us/j/96693700564?pwd=d1FBZnFtVk1rYTdmNExnZ21NZWQwdz09>

ALL INTERESTED ARE WELCOME !!