For favour of Posting

THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

Department of Mathematics

SEMINAR ON STATISTICS

Test of Serial Dependence or Cross Dependence for Time Series with Underreporting

By

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Abstract

In practice, the data collected often systematically deviate from their actual values; a typical example is the underreporting of data in social sciences, ecology and epidemiology. Therefore, direct application of traditional statistical methods to the data may lead to incorrect inferences. In this paper, we propose a new test for serial dependence or cross-dependence of stationary or periodic time series and use a block bootstrap method to mimic the distribution of the test statistics. The test shows desirable performance in simulated data with underreporting and is used to detect factors of dengue transmission and cardiovascular disease.

Date : 16 June 2023 (Friday)
Time : 2:00pm
Venue : Room 2463 (Lifts 25/26)

All are Welcome!