

For favour of posting



DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE  
THE UNIVERSITY OF HONG KONG

50<sup>th</sup> Anniversary Seminar Series

**Professor Anthony DAVISON**

EPFL-FSB-MATHAA-STAT, Station 8  
Ecole Polytechnique Fédérale de Lausanne  
Switzerland

will give a talk  
entitled

**EXTREME COLD WINTERS AND ECOLOGICAL IMPACTS  
ON NORTHERN FORESTS**

Abstract

Global change is expected to have severe impacts on northern climates, opening impassable seaways and damaging infrastructure building on permafrost. It will also affect the life-cycles of insects, such as the moth *Epirrita autumnata*, whose larvae are kept in check by winters with minimum temperatures below  $-36^{\circ}\text{C}$ . Since these larvae can devastate boreal forests, spatial prediction of future minimum temperatures is an important ingredient in understanding the potential ecological impact of warming. In this paper a Bayesian hierarchical approach is used to fit a spatial max-stable process to winter temperature data from around 20 stations in northern Finland, in which times of occurrences are included to enable efficient inference and prediction of the probabilities of major outbreaks in future years. The work is joint with Emeric Thibaud, Dan Cooley, Juha Aalto and Juha Heikkinen.

on

**Friday, May 19, 2017**

*(Refreshments will be served from 10:45 a.m. outside Room 301 Run Run Shaw Building)*

**11:00 a.m. – 12:00 noon**

at

**Room 301, Run Run Shaw Building**

**Visitors Please Note that the University has limited parking space. If you are driving please call the Department at 3917 2466 for parking arrangement.**

ALL INTERESTED ARE WELCOME