



El Departamento de Estadística del ITAM

anuncia la siguiente sesión de

EL SEMINARIO ALEATORIO

que con el título

Estimation of M4 Processes with Particle Filters

Impartirá

Francisco Chamú

(joint work with Richard L. Smith)

Department of Statistics and Operations Research

The University of North Carolina at Chapel Hill

RESUMEN

Extreme value theory is becoming one of the main tools for calculating measures of financial market risk, such as Value at Risk. Multivariate extreme value theory is concerned with the joint distribution of extremes of multiple random variables.

Empirical observations suggest that extreme events in financial time series occur in clusters and are dependent across different assets. Max-stable processes are natural candidates for the statistical modeling of both temporal and cross-sectional extremal dependence of a multivariate stationary time series. Our approach is based on Multivariate Maxima of Moving Maxima (M4) processes, which are a particular class of max-stable processes. We propose Bayesian estimation of M4 processes using a class of simulation filters known as particle filters. The particle filtering method for moving maxima processes is explained in detail, and it is illustrated with simulated data.

Fecha: Viernes 7 de Mayo

Hora: 12:30 hrs.

Salón: Sala de Videos 2 - 2º. Piso Biblioteca

Lista de seminarios próximos. Visite:

www.stat.itam.mx/Seminarios/Proximos.html

El Seminario Aleatorio está destinado tanto a profesores como a estudiantes, por lo que el Departamento de Estadística agradece a los profesores que colaboren invitando a sus alumnos a estas sesiones.

María F. Rojano Agraz

ITAM

Depto. Académico de Estadística

Rio Hondo # 1,

Col. Tizapán San Angel

C.P. 01000 México, D. F.

Tel. 5628-4000 ext. 3803

Fax 5628-4086