INTERNATIONAL CONFERENCE ON LONG RANGE DEPENDENT STOCHASTIC PROCESSES AND THEIR APPLICATIONS

January 7 - 12, 2002

Venue: Faculty Hall, Main Building, IISc

Tentative Schedule

Monday (January 7, 2002)

9:00-10:00	Registration of participants	
10:00-10:30	Inaugural function	
10:30-11:00	Coffee Break	
11:00-12:00	M. Taqqu (Boston)	*Long range dependence and self-similarity: A tutorial*
12:00-12:45	R. J. Bhansali (Liverpool)	*Prediction of long memory time series: An overview*
12:45-2:00	Lunch Break	
2:00-2:45	P. M. Robinson (LSE, London)	*Higher-order kernel semiparametric m-estimation of long memory*
2:45-3:30	H. L. Koul (Michigan State)	*Regression model fitting with long memory designs*
3:30-4:00	Coffee Break	
4:00-4:45	P. Flandrin (ENS, Lyon)	*From stationarity to self-similarity and back: Variations on the Lamperti transformation*
4:45-5:30	G. K. Basak (Bristol)	*On the approximation of long-memory models*

Tuesday (January 8, 2002)

9:15-10:00	J. Klafter (Tel Aviv)	*Anomaly and strong anomaly in diffusion processes*
10:00-10:45	F. Mainardi (Bologna)	*Fractal diffusion processes: Probability distributions and random walk models*
10:45-11:15	Coffee Break	
11:15-12:00	M. Barma (TIFR)	*Clustering in a system of particles sliding down a randomly fluctuating surface*
12:00-12:45	A. D. Gangal (Pune)	*Fractal differential equations and formulation of long-tail problems*
12:45-2:00	Lunch Break	
2:00-2:45	M. Taqqu (Boston)	*Self-similarity and computer network traffic*
2:45-3:30	V. Sharma (IISc)	*Effect of long range dependence on the performance of communication networks*
3:30-4:00	Coffee Break	
4:00-4:45	S. Juneja (IIT, Delhi)	*Overview of efficient simulation techniques for queues and random walks involving heavy tailed distributions*
4:45-5:30	P. Shahabuddin (Columbia)	*Simulating rare events in a canonical random walk using heavy tailed increments*
5:30-6:15	U. B. Desai (IIT, Bombay)	*Broadband traffic modeling and control using v.v.g.m multiplicative multifractal model*

Wednesday (January 9, 2002)

9:00-10:00	B. B. Mandelbrot (Yale/IBM)	*Roughness, clusters, and grid-free processes* *Recorded video talk with live audio session*
10:00-10:45	Y. Yamamoto (Tokyo)	*How long range is the scaling of human heartbeat dynamics*
10:45-11:15	Coffee Break	
11:15-12:00	R. Ramaswamy (JNU)	*Organizing the genome: Segmentation of DNA sequences*
12:00-12:45	P. Chaudhuri (ISI, Calcutta)	*On stochastic replication of character strings*
12:45-2:00	Lunch Break	
2:00-2:45	H. E. Stanley (Boston)	*Long range dependent stochastic processes in financial fluctuations*
2:45-3:30	A. Kirman (EHESS)	*Financial markets with interacting agents: The microeconomic origins of long memory*
3:30-4:00	Coffee Break	
4:00-4:45	T. Lux (Kiel)	*Long range dependence in finance*
4:45-5:30	G. Teyssiere (Brussels & GREQAM)	*Interaction models for common long-range dependence in asset price volatilities*

6:30-8:30 Carnatic classical music concert (ECE Golden Jubilee Seminar Hall)
Violin duet by Mysore Nagaraj and Mysore Manjunath

Thursday (January 10, 2002)

Belur-Hale'beedu sightseeing trip

Friday (January 11, 2002)

9:15-10:00	K. Linkenkaer-Hansen (Biomag Lab)	*Scaling and criticality in large-scale neural activity*
10:00-10:45	P. Ch. Ivanov (Boston)	*Long-Range Dependence in Physiologic Fluctuations: Stochastic Approaches to Analysis and Modeling of Heartbeat Dynamics and Human Gait*
10:45-11:15	Coffee Break	
11:15-12:00	A. Bulsara (SPAWAR, San Diego)	*Stochastic dynamics in a 2D oscillator near a saddle-node bifurcation*
12:00-12:45	G. Molchan (IIEPTMG, Moscow)	*Probabilities of small values for the maximum of fractional Brownian motion*
12:45-2:00	Lunch Break	
2:00-2:45	P. Abry (ENS, Lyon)	*Turbulence, scaling and wavelets: from Kolmogorov to log compound Poisson process, a short walk*
2:45-3:30	V. Balakrishnan (IIT, Madras)	*Long-tailed velocity autocorrelation and stochasticity induced by collisions in a one-dimensional system*
3:30-4:00	Coffee Break	
4:00-4:45	G. Ananthakrishna (IISc)	*On the memory effects and jerky nature of martensitic transformations*
4:45-5:30	A. Erzan (Gursey)	*Recovering Omori's law for temporal correlations between seismic events*

7:30-10:30 Banquet at Le Meridian Hotel

Saturday (January 12, 2002)

9:15-10:00	R. Deo (New York)	*On estimation, goodness-of-fit and forecasting for linear and nonlinear long memory models in finance*
10:00-10:45	G. Silverberg (MERIT)	*Long memory in world economic growth processes since the 19th century*
10:45-11:15	Coffee Break	
11:15-11:35	P. Sibbertsen (Dortmund)	*Distinguishing long memory and structural changes in financial time series*
11:35-11:55	S. Muniyandi (Malaysia)	*Multiscaling analysis of ASEAN currency exchange rates using Gaussian and non-Gaussian models*
11:55-12:15	S. Denisov (Tel Aviv)	*Directed current in Hamiltonian systems by Levy flights*
12:15-12:35	S. Sinha (IISc)	*A stochastic model for network growth: Power law distributions and long-range correlations*
12:45-2:00	Lunch Break	