

IISc Mathematics Initiative

Department of Mathematics, Indian Institute of Science, Bangalore 560 012.

Workshop on Quantitative Finance from November 20 – 24, 2006

Time Table

Registration: **9.00 a.m.**

Venue: **LH I, Department of Mathematics**

| | 9.30 - 11.00 | 11.00 - 11.30 | 11.30 - 1.00 | 1.00 - 2.00 | 2.00 - 3.30 | 3.30 - 4.00 | 4.00 - 5.30 |
|---------|--------------|---------------|--------------|-------------|-------------|-------------|-------------|
| Nov. 20 | MKG | Tea Break | RLK | Lunch Break | SKI | Tea Break | GR |
| Nov. 21 | MKG | | SKI | | GR | | AS |
| Nov. 22 | MKG | | SKI | | GR | | CM |
| Nov. 23 | MKG | | SKI | | GR | | SB |
| Nov. 24 | MKG | | SKI | | GR | | SDG |

Abbreviations

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|-----|---|------------------|
| MKG | : | M.K. Ghosh |
| SKI | : | S.K. Iyer |
| GR | : | G. Rangarajan |
| RLK | : | R.L. Karandikar |
| AS | : | Abhinanda Sarkar |
| CM | : | C. Mukhopadhyay |
| SB | : | S. Basu |
| SDG | : | S. Das Gupta |

Speakers and Topics / Titles

- M.K. Ghosh : Stochastic differential equations, solution concepts, Markov property, Ito's formula, solutions of some SDE's arising in finance. Option pricing, Black - Scholes Theory
- S.K. Iyer : Credit Scoring & applications, mixture Markov models for rating migrations. KMV and credit metrics, credit portfolio view, credit risk⁺ models, Risk measures and capital allocation. Term structure of default probabilities, credit derivatives, collateralized debt obligations
- G. Rangarajan : Linear and nonlinear time series analysis, ARCH, GARCH, EGARCH models, long memory processes, numerical solutions of SDEs.
- R.L. Karandikar : On Merton's paradigm for assessing credit risk via option pricing theory
- A Sarkar : Markov chains in consumer finance
- C. Mukhopadhyay : Effect of options introduction on the volatility of stocks in NSE.
- S. Basu : Bonds and Options Valuation using a conditioning Factor Approach.
- S. Das Gupta : Basics of Performance Inference in Scorecard Development