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# Concentrated Advanced Course on Monte Carlo Methods in Financial Engineering

Lectures by Professor Paul Glasserman, Columbia University

May 28 - June 1, 2001

University of Aarhus

Organized by

MaPhySto and the Danish Doctoral Education Network in Finance

**Content:** This course covers the development, analysis, and application of Monte Carlo methods in financial engineering and risk management. Emphasis will be placed on understanding the efficiency of Monte Carlo methods, combining computational and statistical considerations. Techniques will be illustrated through applications of current interest in industry and in research.

## Course Outline:

- Principles of Monte Carlo methods
- Basic sampling techniques
- Quasi-Monte Carlo
- Discretization methods for stochastic differential equations
- Pricing American options by simulation
- Simulation methods for risk measurement

**Support:** No financial support is available. Participants are expected to have their expenses covered by their home institutions. Note, however, that there is no registration fee.

**Organizers:** Jørgen Aase Nielsen, University of Aarhus, email: [atsjan@imf.au.dk](mailto:atsjan@imf.au.dk), Kristian Miltersen, University of Southern Denmark, Odense, email: [Kristian.R.Miltersen@sam.sdu.dk](mailto:Kristian.R.Miltersen@sam.sdu.dk), and Søren Asmussen, University of Lund, email: [asmus@maths.lth.se](mailto:asmus@maths.lth.se)

**More Information and Registration:** Regularly updated information can be obtained from the web-page

<http://www.maphysto.dk/events/MCMOP2001/>

from where you can also register for the course and find travel information. For more information please contact the Organizers or the MaPhySto secretariat ([maphysto@maphysto.dk](mailto:maphysto@maphysto.dk)).

The deadline for registration is **April 18, 2001**.