

PhD in Computational Finance available

A CASE PhD Studentship in collaboration with the mathematical software company NAG is available in the Department of Mathematics (<http://www.maths.strath.ac.uk>) at the University of Strathclyde.

This PhD project will look at the *design, analysis and implementation of multi-level Monte Carlo methods* for the solution of stochastic differential equations, with emphasis on problems in mathematical finance. It will build on existing work

- M.B. Giles, **Multilevel Monte Carlo path simulation**, Operations Research, 56(3):607-617, 2008. See <http://people.maths.ox.ac.uk/~gilesm/journals.html>
- M.B. Giles, D.J. Higham and X. Mao, **Analysing multi-level Monte Carlo for options with non-globally Lipschitz payoff**, to appear in Finance and Stochastics. See <http://www.maths.strath.ac.uk/~aas96106/pub.html>

The work will combine **numerical analysis, scientific computing, applied probability/statistics** and **mathematical finance**. The PhD is based at the University of Strathclyde and will involve regular trips to NAG.

A successful applicant will have a good honours degree in mathematics or a related subject.

Please consult the University of Strathclyde's EPSRC Industrial CASE Studentships page for guidelines and **eligibility** information

<http://www.strath.ac.uk/pgfunding/phdscholarships/epsrcindustrialcasestudentships/>

Further details can be obtained from Prof Des Higham, Department of Mathematics, University of Strathclyde, <http://www.maths.strath.ac.uk/~aas96106/>

To ensure consideration, please apply before **1st June, 2009**.