



Institute of Actuaries of Australia



MELBOURNE CENTRE FOR FINANCIAL STUDIES

Joint Event

Early exercisable derivatives: using Monte Carlo to obtain tight bounds

with Mark Joshi, Centre for Actuarial Studies, University of Melbourne

Date and Time: **Friday 12th October, 2007, 12.30 - 2.00 pm** (sandwich lunch provided)

Venue: **Finsia offices, Level 12, 330 Collins Street, Melbourne.**

Melbourne Centre for Financial Studies, the Centre for Actuarial Studies of the University of Melbourne and the Institute of Actuaries of Australia are pleased to announce their first joint event.

We examine the problem of pricing early exercisable derivatives using Monte Carlo. We introduce several innovations and in particular, solve the problem of getting upper and lower bounds for a cancellable contract when the analytic value of the break cost is not available.

Mark Joshi obtained a B.A. in mathematics (top of year) from the University of Oxford in 1990, and a Ph.D. in pure mathematics from the Massachusetts Institute of Technology in 1994. He was an assistant lecturer in the department of pure mathematics and mathematical statistics at Cambridge University from 1994 to 1999. Following which he worked for the Royal Bank of Scotland from 1999 to 2005 as a quantitative analyst at a variety of levels, finishing as the Head of Quantitative Research for Group Risk Management. He joined the Centre for Actuarial Studies in November 2005 as an associate professor.

Mark has written two books on mathematical finance, "The concepts and practice of mathematical finance," CUP 2003 and "C++ design patterns and derivatives pricing," CUP 2004. His personal home page can be found at: www.markjoshi.com.

The Centre for Actuarial Studies of the University of Melbourne is accredited with the Institute of Actuaries of Australia to provide education for future actuaries. The staff of the Centre also do research in classical actuarial science (aggregate claims distributions, superannuation, ruin theory, claims reserving) as well as in financial mathematics and probability theory.

More information at: <http://www.economics.unimelb.edu.au/SITE/actwww/ActHome.shtml>

For more information on **Institute of Actuaries of Australia**, please refer: <http://www.actuaries.asn.au>.

Please note that there is a **limit on the number of attendees** but there is no charge. If you are interested in attending and participating, please indicate by an email to info@melbournecentre.com.au with the subject header of "Joint Event – Mark Joshi" by **noon on Thursday 11th October**. (If you subsequently discover you are unavailable to attend, please advise us so that we can offer the place to others who are interested).

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The Melbourne Centre for Financial Studies is a partnership between public and private sectors, and between industry and academe. The Centre was launched with seed funding from the Victorian Government. Members of the consortium are Melbourne, Monash and RMIT Universities, and Finsia. They have joined together to enhance Melbourne's national and international reputation for excellence in financial practice, research and education. The Centre facilitates knowledge transfer between, and builds research synergies between, industry and academe by undertaking finance research, providing consulting services, and organizing research focused conferences, workshops, public lectures and other educational activities.