







Q

Home ► All Journals ► Mathematics, Statistics & Data Science ► Applied Mathematical Finance ► List of Issues ► Volume 14, Issue 4 ► Valuing Volatility and Variance Swaps fo

Applied Mathematical Finance > Volume 14, 2007 - <u>Issue 4</u>

281 47
Views CrossRef citations to date Altmetric
PAPERS

Valuing Volatility and Variance Swaps for a Non-Gaussian Ornstein-Uhlenbeck Stochastic Volatility Model

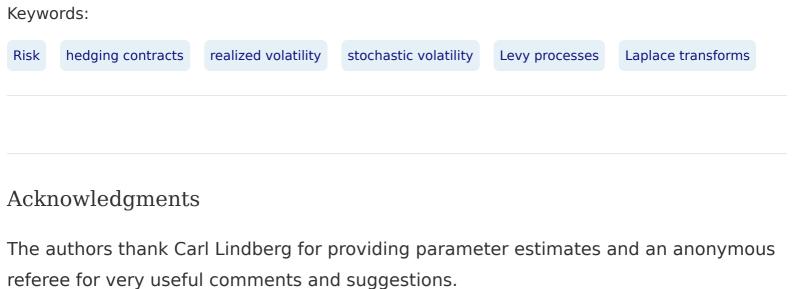
Fred Espen Benth , Martin Groth & Rodwell Kufakunesu

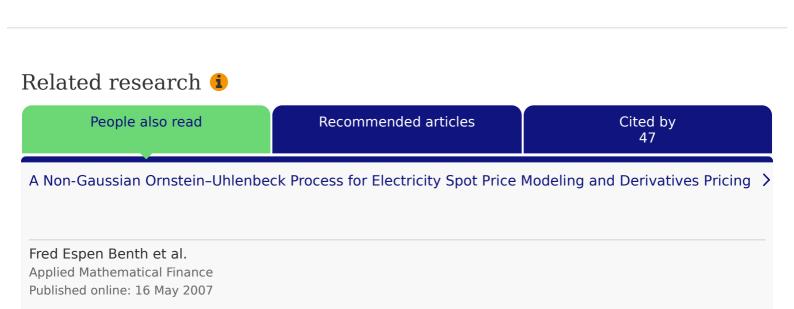
Pages 347-363 | Received 18 Jul 2006, Published online: 27 Jul 2007



Abstract

Following the increasing awareness of the risk from volatility fluctuations, the market for hedging contracts written on realized volatility has surged. Companies looking for means to secure against unexpected accumulation of market activity can find over-the-counter products written on volatility indices. Since the Black and Scholes model require a constant volatility the need to consider other models is obvious. Swaps written on powers of realized volatility in the stochastic volatility model proposed by Barndorff-Nielsen and Shephard are investigated. A key formula is derived for the realized variance able to represent the swap price dynamics in terms of Laplace transforms, which makes fast numerical inversion methods viable. An example using the fast Fourier transform is shown and compared with the approximation proposed by Brockhaus and Long.





Information for

Authors

R&D professionals

Editors

Librarians

Societies

Opportunities

Reprints and e-prints

Advertising solutions

Accelerated publication

Corporate access solutions

Open access

Overview

Open journals

Open Select

Dove Medical Press

F1000Research

Help and information

Help and contact

Newsroom

All journals

Books

Keep up to date

Register to receive personalised research and resources by email



Sign me up











Accessibility



Copyright © 2025 Informa UK Limited Privacy policy Cookies Terms & conditions



Registered in England & Wales No. 01072954 5 Howick Place | London | SW1P 1WG