

A NEW APT PUBLICATION

## PROBABILITY, STATISTICS AND SEISMOLOGY

A Festschrift for David Vere-Jones

We are pleased to announce the publication of *Probability, Statistics and Seismology*, a Festschrift in honour of David Vere-Jones, Professor of Mathematics at Victoria University of Wellington for over 30 years, sometime Chairman of the Education Committee of the International Statistical Institute and prominent in international conferences on the teaching of statistics. He has especially championed co-operative developments in seismology between New Zealand, Japan, China and Italy.

Consisting of 26 refereed papers by authors of international repute, the collection reflects the lifelong work of David Vere-Jones on problems in statistical seismology and his mathematical pursuits relating to Markov chains and point processes. As well as a piece by Vere-Jones himself, who writes on the marriage of statistics and seismology, the contributions cover statistical education, probability theory, Markov chains, time series analysis, estimation problems, models and statistics in seismology and other stochastic models. The book also includes a complete list of publications of David Vere-Jones to date. A full table of contents is available at <http://www.appliedprobability.org/>



*Probability, Statistics and Seismology* (Journal of Applied Probability Special Volume 38A), edited by Daryl J. Daley, assisted by Peter J. Thomson and Yoshihiko Ogata. Hardback, xvi+296pp., illustrated (ISBN 0-902016-06-7).

Price (including surface mail postage): £22.00/\$US36.00/\$A57.00

Cheques payable to 'Applied Probability' are acceptable in British, US or Australian currency. Mastercard or Visa are welcome (the amount will be deducted in pounds sterling); please provide your name and address (exactly as recorded by your credit card company), card number and expiry date. EU customers registered for VAT, please state your VAT number when ordering. Orders together with payment should be sent to:

Applied Probability, School of Mathematics and Statistics,  
University of Sheffield, Sheffield S3 7RH, UK.

For further information contact Sue Boyles: Tel: +44 114 222 3922;  
Fax: +44 114 272 9782; Email: [s.c.boyles@sheffield.ac.uk](mailto:s.c.boyles@sheffield.ac.uk)

## SUBSCRIPTION RATES

Subscription rates (post free) for volume 39 (2002) of the *Journal of Applied Probability* are as follows:

US\$238.50; \$A376.35; £145.50 for libraries and institutions;

US\$79.50; \$A125.45; £48.50 for individuals belonging to a recognised scientific society.

Members of the London Mathematical Society should apply direct to the Secretary of the Society for copies of the *Journal*.

Please send all enquiries to: Applied Probability, School of Mathematics and Statistics, University of Sheffield, Sheffield S3 7RH, UK.

We can provide back issue prices on application. Cheques, money orders, etc. should be made out to APPLIED PROBABILITY. Payment is accepted in US, UK or Australian currency or by VISA or Mastercard (phone: +44 114 222 3922; fax: +44 114 272 9782).

## NOTES FOR CONTRIBUTORS

Papers published in the *Journal* are of two kinds:

(1) *research papers* not exceeding 20 printed pages;

(2) *short communications* of a few printed pages in the nature of notes or brief accounts of work in progress.

*Review papers, longer research papers and letters to the editor* are published in *Advances in Applied Probability*, a companion journal. (Note: Letters relating specifically to papers which have appeared in the *Journal of Applied Probability* will continue to appear in the *Journal*.)

The editors may publish accepted papers in either journal, according to the space available, in order to meet the 15-month deadline in publication referred to below.

### Submission of papers

Papers submitted to the Applied Probability journals are considered on the understanding that they have not been published previously and are not under consideration by another publication. Papers will not be reprinted without the written permission of the Trust. It is the policy not to accept for publication papers which cannot appear in print within 15 months of the date of receipt of the final version. Fifty reprints of each paper will be provided free; additional reprints are available at cost.

Papers should be written in English or French; papers in other languages may be accepted by the editors, but will appear (subject to the author's agreement) in English or French translation. Please supply *three* double-spaced hard copies, at least one of which should be printed on one side of the paper only. The paper should include: (1) a short abstract of approximately 4–10 lines giving a non-mathematical description of the subject matter and results; (2) list of keywords detailing the contents for the purpose of computerised information retrieval; (3) primary and secondary classifications according to the 2000 Mathematics Subject Classification.

Authors are advised to consult *The Author's Guide to the Applied Probability Journals* when preparing papers for submission. A copy of this guide may be obtained free of charge from the Applied Probability Office. An updated version of the guide, with LATEX style files, can be obtained in electronic form on <http://www.appliedprobability.org> or on PC-compatible disk from the Applied Probability Office. For instructions on how papers may be submitted electronically, please consult the notes for contributors at the above URL.

For efficiency in processing, authors are requested to send all submissions to the Applied Probability Office in Sheffield, rather than to individual editors. The address for all submissions is:

**Executive Editor, Applied Probability, School of Mathematics and Statistics,  
University of Sheffield, Sheffield S3 7RH, UK.**

## COPYRIGHT

The copyright of all published papers is vested in the Trust. When a paper is accepted for publication, the Trust asks the author(s) to assign copyright to the Trust by signing a form in which the terms of copyright are listed. Failure to do this promptly may delay or prevent publication.

Authorisation to photocopy items for internal or personal use, or the internal or personal use of specific clients, is granted by the Applied Probability Trust for libraries and other users registered with the Copyright Clearance Center (CCC) Transactional Reporting Service, provided that the base fee of \$00.70 per copy, plus .20 per page is paid directly to CCC, 222 Rosewood Drive, Danvers, MA 01923, USA. 0021-9002/02 \$00.70 + .20.

*Research Papers*

- 233 XIANPING GUO AND WEIPING ZHU. Denumerable-state continuous-time Markov decision processes with unbounded transition and reward rates under the discounted criterion
- 251 OLIVIER BONIN. Large deviation theorems for weighted sums applied to a geographical problem
- 261 BOGDAN KRZYSZTOF MUCIEK. Optimal stopping of a risk process: model with interest rates
- 271 SHOOU-REN HSIAU AND JIING-RU YANG. Selecting the last success in Markov-dependent trials
- 282 MYKOLA BRATIYCHUK. Remarks on the absolute maximum of a Lévy process
- 296 JIE MI. Age-replacement policy and optimal work size
- 312 JUN CAI. Ruin probabilities with dependent rates of interest
- 324 GORDON E. WILLMOT. On higher-order properties of compound geometric distributions
- 341 V. G. KULKARNI AND K. D. GLAZEBROOK. Output analysis of a single-buffer multiclass queue: FCFS service
- 359 N. BARBOT AND B. SERICOLA. Stationary solution to the fluid queue fed by an M/M/1 queue
- 370 CHUNSHENG MA. Correlation models with long-range dependence

*Short Communications*

- 383 GUILLERMO TOMÁS TETZLAFF. Breakage and restoration in recursive trees
- 391 VICKY HENDERSON AND RAFAŁ WOJAKOWSKI. On the equivalence of floating- and fixed-strike Asian options
- 395 PETER JAGERS AND LU ZHUNWEI. Branching processes with deteriorating random environments
- 402 RONALD W. WOLFF AND CHIA-LI WANG. On the convexity of loss probabilities
- 407 M. J. LOPEZ-HERRERO. Distribution of the number of customers served in an M/G/1 retrial queue
- 413 OFFER KELLA AND WOLFGANG STADJE. Markov-modulated linear fluid networks with Markov additive input
- 421 FRANCO PELLERAY AND PATRIZIA SEMERARO. Ageing and stochastic comparisons for a covariate failure model
- 426 XIAOHU LI AND MING J. ZUO. On behaviour of some new ageing properties based upon the residual life of  $k$ -out-of- $n$  systems
- 434 ANTONIO DI CRESCENZO AND MARIA LONGOBARDI. Entropy-based measure of uncertainty in past lifetime distributions
- 441 Obituary: Richard Lewis Tweedie