Project Euclid

mathematics and statistics journals on-line

Applied Probability journals online at http://projecteuclid.org/jap http://projecteuclid.org/aap

Journal of Applied Probability and Advances in Applied Probability are now available online, in partnership with Project Euclid, at no extra cost to subscribers.

The online editions include

- an electronic version of each new issue (in PDF format) some weeks before the printed version becomes available
- an archive of all issues since 1998
- full bibliographic details of each article, along with its abstract and an actively linked list of references
- a search facility, allowing users to search by author name, article title, subject or keyword, or through the full text of the abstract or the article itself

Access

The abstract and reference list of each article are available free to all users; full access to the archive, including the full text of articles, is currently available at no extra charge to subscribers to the print editions.

Individual subscribers should register with Project Euclid by creating a user profile, entering their JAP and/or AAP subscription number where a 'subscriber code' is requested.

Institutional subscribers should complete and return a licence agreement (available at http://www.appliedprobability.org) to the Applied Probability office along with the details of their IP range.

Non-subscribers can gain access to individual articles on a pay-per-view basis.

For further information, please contact Sue Boyles: telephone +44 114 222 3922, fax +44 114 272 9782, email s.c.boyles@sheffield.ac.uk, write to

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

or visit our website:

www.appliedprobability.org



Subscription rates

Subscription rates for volume **42** (2010) of *Advances in Applied Probability* (*AAP*) are as follows (post free and including online access at http://projecteuclid.org/aap/): US\$312.00; A\$390.00; £186.00 for libraries and institutions; or US\$104.00; A\$130.00; £62.00 for individuals belonging to a recognised scientific society. The subscription rates for volume **47** (2010) of *Journal of Applied Probability*, the companion publication, are the same; if both journals are ordered directly from the Applied Probability office at the same time, the combined price is discounted by 10%. Please send all enquiries to: Applied Probability Subscriptions, School of Mathematics and Statistics, University of Sheffield, Sheffield S3 7RH, UK (telephone +44 114 222 3922; fax +44 114 272 9782; email s.c.boyles@sheffield.ac.uk). Cheques, money orders, etc. should be made payable to 'Applied Probability'. Payment is acceptable in US, Australian or UK currency, or by Visa or Mastercard. We can provide back issue prices on application.

Notes for contributors

Research papers are published in both *Journal of Applied Probability (JAP)* and *Advances in Applied Probability (AAP)*, with longer papers typically appearing in *AAP*. However, assignation of papers between the two journals is made by the Editor on an issue-by-issue basis. A submission to Applied Probability is considered as a submission to either journal. In addition, *JAP* publishes short communications of a few printed pages in the nature of notes and letters specifically related to papers that have appeared in *JAP*. Review papers and papers in *stochastic geometry and statistical applications* are published in *AAP*.

Fifty offprints of each paper will be provided free, with additional offprints available at cost.

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. Accepted papers will not be published elsewhere without the written permission of the Trust. Submitted papers should be in English. It is the author's responsibility to ensure an acceptable standard of language, and a paper failing to meet this requirement may go back to the author for rewriting before being sent out for review.

Papers should include: (i) a **short abstract** of 4–10 lines giving a non-mathematical description of the subject matter and results; (ii) a list of **keywords** detailing the contents; and (iii) a list of **classifications**, using the 2000 Mathematics Subject Classification scheme (http://www.ams.org/msc/). Letters to the Editor need not include these. To assist authors in writing papers in the Applied Probability style, they may use the LATEX class file aptpub.cls, available from http://www.appliedprobability.org/. Use of this class file is not a condition of submission, but will considerably increase the speed at which papers are processed.

Papers should be submitted as hard copy or as electronic files (with hard copy back-up). All submissions will be acknowledged on receipt and must be accompanied by a covering letter stating the author's postal address and affiliation. Hard copy: Send all submissions to the Applied Probability office in Sheffield, and not to individual editors. Two copies of the paper, at least one of which should be double spaced, should be sent to: Executive Editor, Applied Probability, School of Mathematics and Statistics, University of Sheffield, Sheffield S3 7RH, UK. Electronic submission: Please email a double-spaced PostScriptTM (.ps) or portable document format (.pdf) file, not exceeding 1 Mb. The files must be clearly identified by name in a separate covering message. The address for email submissions is l.nash@sheffield.ac.uk. Authors should also submit one hard copy to the Executive Editor, as above.

Copyright

The copyright of all published papers is vested in the Applied Probability Trust. When a paper is accepted for publication, the Trust asks the authors to assign copyright 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 corresponding processing and royalty fees (see http://www.copyright.com) are paid directly to CCC, 222 Rosewood Drive, Danvers, MA 01923, USA. 0001–8678/10

Volume 42 Number 1

Stochastic Geometry and Statistical Applications

- 1 PAUL BALISTER, BÉLA BOLLOBÁS, AMITES SARKAR AND MARK WALTERS. Sentry selection in wireless networks
- 26 RICHARD COWAN. New classes of random tessellations arising from iterative division of cells
- 48 L. MUCHE. Contact and chord length distribution functions of the Poisson–Voronoi tessellation in high dimensions
- 69 TERRY SOO. Translation-equivariant matchings of coin flips on \mathbb{Z}^d

General Applied Probability

- 83 JAN KALLSEN AND ARND PAUWELS. Variance-optimal hedging in general affine stochastic volatility models
- 106 MARIANA OLVERA-CRAVIOTO. On the distribution of the nearly unstable AR(1) process with heavy tails
- 137 WEI BIAO WU, YINXIAO HUANG AND WEI ZHENG. Covariances estimation for long-memory processes
- 158 KURT HELMES AND RICHARD H. STOCKBRIDGE. Construction of the value function and optimal rules in optimal stopping of one-dimensional diffusions
- 183 ARKA P. GHOSH, ALEXANDER ROITERSHTEIN AND ANANDA WEERASINGHE. Optimal control of a stochastic processing system driven by a fractional Brownian motion input
- 210 P. G. TAYLOR AND B. VAN HOUDT. On the dual relationship between Markov chains of GI/M/1 and M/G/1 type
- 226 ADAM L. KINNISON AND PETER MÖRTERS. Simultaneous multifractal analysis of the branching and visibility measure on a Galton–Watson tree
- ANDREAS BRANDT AND MANFRED BRANDT. Insensitive bounds for the moments of the sojourn times in M/GI systems under state-dependent processor sharing
- 268 O. HRYNIV AND M. MENSHIKOV. Long-time behaviour in a model of microtubule growth

Published by the **Applied Probability Trust** Copyright © **Applied Probability Trust** 2010 ISSN 0001–8678