APPLIED PROBABILITY TRUST PRIZES 2014

The Trustees of the Applied Probability Trust (APT) have much pleasure in announcing the names of the APT Prize winners for 2014. We offer them our warmest congratulations, and look forward to their pursuing further studies and eventually careers in probability, statistics and their applications.

Australian National University, Canberra June 2015 JOE GANI for the APT Trustees

The following prize awards for undergraduate and postgraduate achievement in 2014 were funded by the Applied Probability Trust.

University of Adelaide (Applied Probability Trust Prize) Adam Ben Rohrlach and
Wai Him (Thomas) Pun
Australian National University (Applied Probability Trust Prize) Du Liu
University of California, Santa Barbara (Abraham Wald Prize)
University of Cambridge (Bartlett Prize) Theodoros Assiotis
CWI, Amsterdam (Applied Probability Trust Prize) Not awarded in 2014
Imperial College, London (Hyman Levy Prize) Hanning Zhu
University of Kentucky (R. L. Anderson Prize) Edward Roualdes, Emily Snyder,
Shaoceng Wei, and Grady Weyenberg
University of Manchester (M. S. Bartlett Prize) Fjoralba Shemaj
University of Melbourne (Norma McArthur Prize) Kiran Raskutti
University of Newcastle, New South Wales (Applied Probability Trust
Statistics Prize) Harry Geraghty
The Open University (George Barnard Prize) Gavin Winston and Lars Warnholtz
University of Sheffield (Sir Edward Collingwood Prize) Anna Heath and Ailsa Hickey
University of Sydney (Applied Probability Trust Prize) Craig Coorey and Kristen Emery
University of Waterloo (George Barnard Prize) Isabel Ji
University of Western Australia
Richard Tweedie Memorial Applied Probability Trust Prize Georgina Rachel Carson
Abraham Wald Prize Kenyon Wei Yaw Ng
University of Wollongong
(William Sealy Gosset Prize) Nicole Cocks
(Applied Probability Trust Prize) Penelope Drastik

ROLLO DAVIDSON TRUST

The Trustees of the Rollo Davidson Trust give notice that they have awarded the Rollo Davidson Prize for 2015 jointly to

Nicolas Curien (Université Paris-Sud) for outstanding work on random planar maps and related processes, and **Jason Miller** (MIT) for far-reaching results on the geometry of the continuum Gaussian free field.

Further details of the Rollo Davidson Trust may be found at http://www.statslab.cam.ac.uk/Rollo/

Subscription rates

Subscription rates for volume **52** (2015) of *Journal of Applied Probability (JAP)* are as follows (post free and including online access at http://projecteuclid.org/jap/): US\$344.00; A\$387.00; £222.00 for libraries and institutions; or US\$116.00; A\$131.00; £75.00 for individuals belonging to a recognised scientific society. The subscription rates for volume **47** (2015) of *Advances in 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 +44 114 222 3926; 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

A submission to Applied Probability is considered as a submission to either *Journal of Applied Probability* (JAP) or *Advances in Applied Probability* (AAP). Longer papers are typically published in AAP, but the assignation of papers between the two journals is made by the Editor-in-Chief on an issue-by-issue basis. Short communications and letters specifically relating to papers appearing in either JAP or AAP are published in JAP.

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 be submitted as hard copy or as electronic files. 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 **submissions japaap@sheffield.ac.uk**.

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. 0021–9002/15

PRINTED IN EUROPE BY BERFORTS INFORMATION PRESS, OXFORDSHIRE

Volume 52 Number 2

Research Papers

- 307 KRISTIAN DEBRABANT AND ANDREAS RÖBLER. On the acceleration of the multi-level Monte Carlo method
- 323 MIHÁLY KOVÁCS, STIG LARSSON AND FREDRIK LINDGREN. On the backward Euler approximation of the stochastic Allen-Cahn equation
- 339 AJAY JASRA. On the behaviour of the backward interpretation of Feynman-Kac formulae under verifiable conditions
- 360 ANTONIO DI CRESCENZO, BARBARA MARTINUCCI AND SHELEMYAHU ZACKS. Compound Poisson process with Poisson subordinator
- 375 ÁGNES BACKHAUSZ AND TAMÁS F. MÓRI. Asymptotic properties of a random graph with duplications
- 391 CHRISTOPHE ANDRIEU, GERSENDE FORT AND MATTI VIHOLA. Quantitative convergence rates for subgeometric Markov chains
- 405 EMMANUELLE ANCEAUME, YANN BUSNEL AND BRUNO SERICOLA. New results on a generalized coupon collector problem using Markov chains
- 419 ROLANDO CAVAZOS-CADENA, RAÚL MONTES-DE-OCA AND KAREL SLADKÝ. Sample-path optimal stationary policies in stable Markov decision chains with the average reward criterion
- 441 XIAO WU AND XIANPING GUO. First passage optimality and variance minimisation of Markov decision processes with varying discount factors
- 457 N. G. BEAN, R. ELLIOTT, A. ESHRAGH AND J. V. ROSS. On binomial observations of continuous-time Markovian population models
- 473 YONIT BARRON. A fluid EOQ model with Markovian environment
- 490 JEAN-LUC MARICHAL. Algorithms and formulae for conversion between system signatures and reliability functions
- 508 ALESSANDRO D'ANDREA AND LUCA DE SANCTIS. The Kruskal-Katona theorem and a characterization of system signatures
- 519 JERE KOSKELA, PAUL JENKINS AND DARIO SPANÒ. Computational inference beyond Kingman's coalescent
- 538 AMAURY LAMBERT AND CHUNHUA MA. The coalescent in peripatric metapopulations
- 558 JI HWAN CHA AND INMA T. CASTRO. A stochastic failure model with dependent competing risks and its applications to condition-based maintenance
- 574 F. G. BADÍA AND C. SANGÜESA. The DFR property for counting processes stopped at an independent random time

Short Communications

- 586 CHRISTIAN BENDER, MIKKO S. PAKKANEN AND HASANJAN SAYIT. Sticky continuous processes have consistent price systems
- 595 DIRK VEESTRAETEN. A recursion formula for the moments of the first passage time of the Ornstein–Uhlenbeck process
- 602 MARK HUBER AND NEVENA MARIĆ. Multivariate distributions with fixed marginals and correlations

Published by the **Applied Probability Trust** Copyright © 2015 by the **Applied Probability Trust**