

Advances in Applied Probability

The Editorial Board would like to encourage the submission to the *Advances* of review papers summarising and coordinating recent results in any of the fields of applied probability.

In addition to these review papers, *Advances* is also designed to be a medium of publication for (1) longer research papers in applied probability, which may include expository material, (2) expository papers on branches of mathematics of interest to probabilists, (3) papers outlining areas in the biological, physical, social and technological sciences in which probability models can be usefully developed, (4) papers in applied probability presented at conferences which do not publish their proceedings, and finally, (5) letters to the editor on any appropriate topic in applied probability.

In short, the main function of *Advances* is to define areas of recent progress and potential development in applied probability. As with the *Journal of Applied Probability*, *Advances* undertakes to publish papers accepted by the Editors within 15 months of their submission; letters to the editor will normally be published more rapidly.

Volume 21 No. 2 of *Advances* contains the following papers:

ANTHONY G. PAKES. Asymptotic results for the extinction time of Markov branching processes allowing emigration, I. Random walk decrements

K. V. MITOV AND N. M. YANEV. Bellman–Harris branching processes with a special type of state-dependent immigration

STEVEN L. BEUERMAN AND EDWARD J. COYLE. State space expansions and the limiting behavior of quasi-birth-and-death processes

H. E. DANIELS. The maximum of a Gaussian process whose mean path has a maximum, with an application to the strength of bundles of fibres

ROBERT J. ADLER. Fluctuation theory for systems of signed and unsigned particles with interaction mechanisms based on intersection local times

C. E. M. PEARCE. Extended continued fractions, recurrence relations and two-dimensional Markov processes

AWI FEDERGRUEN AND KUT C. SO. Optimal time to repair a broken server

M. RUMSEWICZ AND W. HENDERSON. Insensitivity with age-dependent routing

ARIE HORDIJK AND FLOS SPIEKMA. Constrained admission control to a queueing system

SID BROWNE AND URI YECHIALI. Dynamic priority rules for cyclic-type queues

ZHANG HANQIN AND WANG RONGXIN. Heavy traffic limit theorems for a queueing system in which the customers join the shortest line

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(i) a short abstract of approximately 4–10 lines giving a non-mathematical description of the subject matter and results;

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Volume 26 Number 2

Research Papers

- 219 M. TERESA ALPUIM. An extremal Markovian sequence
233 STRATIS KOUNIAS AND KIKI SOTIRAKOGLU. Bonferroni bounds revisited
242 W. HENDERSON AND P. TAYLOR. Insensitivity of processes with interruptions
259 BARTHOLD F. VAN WEL. The convex hull of a uniform sample from the interior of a simple d -polytope
274 GY. TERDIK AND T. SUBBA RAO. On Wiener–Ito representation and the best linear predictors for bilinear time series
287 NADER EBRAHIMI AND T. RAMALLINGAM. On the dependence structure of hitting times of multivariate processes
296 RUDOLF GRÜBEL. Stochastic models as functionals: some remarks on the renewal case
304 T. S. FERGUSON AND J. P. HARDWICK. Stopping rules for proofreading
314 F. A. ATTIA. Resolvent operators of Markov processes and their applications in the control of a finite dam
325 R. W. R. DARLING. Infinite-dimensional stochastic difference equations for particle systems and network flows
345 JEWGENI DSHALALOW. Multichannel queueing systems with infinite waiting room and stochastic control
363 S. A. BEREZNER AND V. A. MALYSHEV. The stability of infinite-server networks with random routing
372 NICO M. VAN DIJK. An LCFS finite buffer model with finite source batch input
381 NICHOLAS BAMBOS AND JEAN WALRAND. On queues with periodic inputs
390 AUSTIN J. LEMOINE. Waiting time and workload in queues with periodic Poisson input

Short Communications

- 398 HARRY COHN. Multitype finite mean supercritical age-dependent branching processes
404 B. B. WINTER. Joint simulation of backward and forward recurrence times in a renewal process
408 FERNANDO AFFENTRANGER. Random circles in the d -dimensional unit ball
413 J. GEORGE SHANTHIKUMAR AND DAVID D. YAO. Stochastic monotonicity in general queueing networks
418 FRANÇOIS BACCELLI AND WILLIAM A. MASSEY. A sample path analysis of the $M/M/1$ queue
423 SAEED GHAHRAMANI. Finiteness of moments of virtual work for $GI/G/c$ queues
426 OBITUARY: Michel Métivier