

# Advances in Applied Probability

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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in which probability models can be usefully developed, (4) papers in applied probability presented at conferences which do not publish their proceedings, and finally, (5) letters to the editor on any appropriate topic in applied probability.

As from March 1994, *Advances* will include a new section devoted to stochastic geometry and statistical applications (see the announcement and call for papers in the March issue).

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 25 No. 4 of *Advances* contains the following papers:

FRANK BALL AND DAMIAN CLANCY. The final size and severity of a generalised stochastic multitype epidemic model

ANTHONY G. PAKES. Explosive Markov branching processes: entrance laws and limiting behaviour  
J. D. BIGGINS AND N. H. BINGHAM. Large deviations in the supercritical branching process

ALISON M. ETHERIDGE. Limiting behaviour of two-level measure-branching

I. J. B. F. ADAN, J. WESSELS AND W. H. M. ZIJM. A compensation approach for two-dimensional Markov processes

M. A. GUERRY. The probability of attaining a structure in a partially stochastic model

FRANS A. BOSHUIZEN AND JOSÉ M. GOUWELEEUW. General optimal stopping theorems for semi-Markov processes

MAŁGORZATA ROOS. Compound Poisson approximations for the numbers of extreme spacings

NAHUM SHIMKIN. Extremal large deviations in controlled i.i.d. processes with applications to hypothesis testing

HAIJUM LI AND MOSHE SHAKED. Stochastic majorization of stochastically monotone families of random variables

EMAD EL-NEWEIHI AND JAYARAM SETHURAMAN. Optimal allocation under partial ordering of lifetimes of components

NADER EBRAHIMI. Modeling of repairable systems

FRANCO PELLERÉY. Partial orderings under cumulative damage shock models

DIMITRIS J. BERTSIMAS AND GARRETT VAN RYZIN. Stochastic and dynamic vehicle routing with general demand and interarrival time distributions

ARIE HORDIJK AND GER KOOLE. On the optimality of LEPT and  $\mu c$  rules for parallel processors and dependent arrival processes

PAWEŁ GAZDZICKI, IOANNIS LAMBADARIS AND RAVI R. MAZUMDAR. Blocking probabilities for large multirate Erlang loss systems

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# Telecommunication Systems

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