

# THE ANNALS of APPLIED PROBABILITY

AN OFFICIAL JOURNAL OF THE  
INSTITUTE OF MATHEMATICAL STATISTICS

## Articles

- Dynamic allocation problems in continuous time  
NICOLE EL KAROUI AND IOANNIS KARATZAS 255
- An optimal control formulation and related numerical methods  
for a problem in shape reconstruction . . . . . PAUL DUPUIS AND JOHN OLIENSIS 287
- On the rate of convergence of the metropolis algorithm and  
Gibbs sampler by geometric bounds . . . . . SALVATORE INGRASSIA 347
- Fluid models in queueing theory and Wiener–Hopf  
factorization of Markov chains . . . . . L. C. G. ROGERS 390
- Instability of FIFO queueing networks. . . . . MAURY BRAMSON 414
- Large exceedances for multidimensional Lévy processes  
AMIR DEMBO, SAMUEL KARLIN AND OFER ZEITOUNI 432
- Brownian models of closed queueing networks: Explicit  
solutions for balanced three-station systems  
ELIZABETH SCHWERER AND JAN A. VAN MIEGHEM 448
- On the asymptotic distribution of the area outside a random  
convex hull in a disk . . . . . TAIEN HSING 478
- Law of large numbers for a heterogeneous system of  
stochastic differential equations with strong local interaction  
and economic applications . . . . . WILLIAM FINNOFF 494
- Extremal behaviour of stationary Markov chains  
with applications . . . . . ROLAND PERFEKT 529
- A limit theorem for linear boundary value problems  
in random media . . . . . JEAN-PIERRE FOUQUE AND ELY MERZBACH 549
- Quadrature routines for ladder variables . . . . . ROBERT W. KEENER 570
- Asymptotic behavior of large discrete-time cyclic queueing networks  
VICTOR PESTIEN AND S. RAMAKRISHNAN 591
- Correction**
- Uniqueness of stationary ergodic fixed point for a  $M/K$  node . . . . . V. ANANTHARAM 607

---

Vol. 4, No. 2—May 1994