## THE ANNALS

of

## APPLIED PROBABILITY

## AN OFFICIAL JOURNAL OF THE INSTITUTE OF MATHEMATICAL STATISTICS

## Articles

A new formula for some linear stochastic equations with applications	
OFFER KELLA AND MARC YOR	367
Asymptotic behavior of solutions of the fragmentation equation with shattering:  An approach via self-similar Markov processes BÉNÉDICTE HAAS	382
The role of the central limit theorem in discovering sharp rates of convergence to equilibrium for the solution of the Kac equation	420
EMANUELE DOLERA AND EUGENIO REGAZZINI	430
On rough isometries of Poisson processes on the line	462
A Birthday Paradox for Markov chains with an optimal bound for collision in the Pollard Rho algorithm for discrete logarithm	405
JEONG HAN KIM, RAVI MONTENEGRO, YUVAL PERES AND PRASAD TETALI	495
Exact and asymptotic <i>n</i> -tuple laws at first and last passage A. E. KYPRIANOU, J. C. PARDO AND V. RIVERO	522
Ising models on locally tree-like graphs AMIR DEMBO AND ANDREA MONTANARI	565
Interacting Markov chain Monte Carlo methods for solving nonlinear measure-valued equationsPIERRE DEL MORAL AND ARNAUD DOUCET	593
Optimal detection of a change-set in a spatial Poisson process	
B. GAIL IVANOFF AND ELY MERZBACH	640
Brownian coagulation and a version of Smoluchowski's equation on the circle INÉS ARMENDÁRIZ	660
Normal approximation for coverage models over binomial point processes  LARRY GOLDSTEIN AND MATHEW D. PENROSE	696
The limiting move-to-front search-cost in law of large numbers asymptotic regimes  JAVIERA BARRERA AND JOAQUÍN FONTBONA	722
Positive recurrence of reflecting Brownian motion in three dimensions  MAURY BRAMSON, J. G. DALAND I. M. HARRISON	753