

# Contents

---

Contributors	ix
Speech Proposing the Toast to John Hammersley — 1 October 1987 <i>David Kendall</i>	1
Jakimovski Methods and Almost-Sure Convergence <i>N.H. Bingham and U. Stadtmüller</i>	5
Markov Random Fields in Statistics <i>Peter Clifford</i>	19
On Hammersley's Method for One-Dimensional Covering Problems <i>Cyril Domb</i>	33
On a Problem of Straus <i>P. Erdős and A. Sárközy</i>	55
Directed Compact Percolation II: Nodal Points, Mass Distribution, and Scaling <i>J.W. Essam and D. Tanlakishani</i>	67
Critical Points, Large-Dimensionality Expansions, and the Ising Spin Glass <i>Michael E. Fisher and Rajiv R.P. Singh</i>	87
Bistability in Communication Networks <i>R.J. Gibbens, P.J. Hunt, and F.P. Kelly</i>	113
A Quantal Hypothesis for Hadrons and the Judging of Physical Numerology <i>I.J. Good</i>	129
Percolation in $\infty + 1$ Dimensions <i>G.R. Grimmett and C.M. Newman</i>	167
Monte Carlo Methods Applied to Quantum-Mechanical Order-Disorder Phenomena in Crystals <i>D.C. Handscomb</i>	191
The Diffusion of Euclidean Shape <i>Wilfred S. Kendall</i>	203
Asymptotics in High Dimensions for Percolation <i>Harry Kesten</i>	219

Some Random Collections of Finite Subsets <i>J.F.C. Kingman</i>	241
Probabilistic Analysis of Tree Search <i>C.J.H. McDiarmid</i>	249
Probability Densities for Some One-Dimensional Problems in Statistical Mechanics <i>J.S. Rowlinson</i>	261
Seedlings in the Theory of Shortest Paths <i>J. Michael Steele</i>	277
The Computational Complexity of Some Classical Problems from Statistical Physics <i>D.J.A. Welsh</i>	307
Lattice Animals: Rigorous Results and Wild Guesses <i>S.G. Whittington and C.E. Soteros</i>	323
Fields and Flows on Random Graphs <i>P. Whittle</i>	337
Bond Percolation Critical Probability Bounds for the Kagomé Lattice by a Substitution Method <i>John C. Wierman</i>	349
Brownian Motion and the Riemann Zeta-Function <i>David Williams</i>	361
Index	373