

C O N T E N T S

S. Albeverio, R. <u>Høegh-Krohn</u> , H. Holden	
Stochastic Lie group-valued measures and theirs relations to stochastic curve integrals, gauge-fields and Markov cosurfaces	1
E. A. Carlen	
Existence and sample path properties of the diffusions in Nelson's stochastic mechanics	25
A.P. Carverhill, M.J. Chappell, <u>K.D. Elworthy</u>	
Characteristic exponents for stochastic flows	52
G.F. Dell'Antonio	
Electric field and effective dielectric constant in random media with non-linear response	81
<u>D. Dürr</u> , S. Goldstein	
Remarks on the central limit theorem for weakly dependent random variables	104
H. Föllmer	
Time reversal on Wiener space	119
L. Gross	
Lattice gauge theory: Heuristic and convergence	130
S. Kusuoka	
The generalized Malliavin calculus based on Brownian sheet and Bismut's expansion for large deviation	141
J.T. Lewis	
An elementary approach to Brownian motion on manifolds	158

J. T. Lewis, <u>A. Truman</u>	
The stochastic mechanics of the ground-state of the hydrogen atom	168
T. Lindström	
Nonstandard analysis and perturbations of the Laplacian along Brownian paths	180
Y. Le Jan	
Hausdorff dimension for the statistical equilibrium of stochastic flows ..	201
H. Nagai	
Stopping problems of symmetric Markov processes and non-linear variational inequalities	208
M. Pinsky	
Mean exit times and hitting probabilities of Brownian motion in geodesic balls and tubular neighborhoods	216
W.R. Schneider	
Rigorous scaling laws for Dyson measures	224
R. Senéor	
Asymptotic freedom: A rigorous approach	234
R. Streater	
The Fermion stochastic calculus I	245