

# SPRINGER TRACTS IN MODERN PHYSICS

Ergebnisse der exakten Naturwissenschaften

Editor: G. Höhler · Associate Editor: E. A. Niekisch

Editorial Board: S. Flügge, J. Hamilton, F. Hund,  
H. Lehmann, G. Leibfried, W. Paul

## Volume 66

30 figures. III, 173 pages. 1973  
Cloth DM 78,—; US \$35.10  
ISBN 3-540-06189-4

### Quantum Statistics in Optics and Solid-State Physics

**R. Graham:** Statistical Theory of Instabilities  
in Stationary Nonequilibrium Systems with  
Applications to Lasers and Nonlinear Optics.

**F. Haake:** Statistical Treatment of Open  
Systems by Generalized Master Equations.

## Volume 68

77 figures. IV, 211 pages. 1973  
Cloth DM 88,—; US \$39.60  
ISBN 3-540-06341-2

### Solid-State Physics

**D. Schmid:** Nuclear Magnetic Double  
Resonance — Principles and Applications in  
Solid-State Physics.

**D. Bäuerle:** Vibrational Spectra of Electron  
and Hydrogen Centers in Ionic Crystals.

**J. Behringer:** Factor Group Analysis Revisited  
and Unified.

## Volume 67

IV, 69 pages. 1973  
Cloth DM 38,—; US \$17.10  
ISBN 3-540-06216-5

### S. Ferrara, R. Gatto, A. F. Grillo: Conformal Algebra in Space-Time and Operator Product Expansion

Introduction to the Conformal Group in  
Space-Time. Broken Conformal Symmetry.  
Restrictions from Conformal Covariance on  
Equal-Time Commutators. Manifestly  
Conformal Covariant Structure of Space-Time.  
Conformal Invariant Vacuum Expectation  
Values. Operator Products and Conformal  
Invariance on the Light-Cone. Consequences  
of Exact Conformal Symmetry on Operator  
Product Expansions. Conclusions and  
Outlook.

## Volume 69

13 figures. IV, 115 pages. 1973  
Cloth DM 78,—; US \$35.10  
ISBN 3-540-06376-5

### Astrophysics

**G. Börner:** On the Properties of Matter in  
Neutron Stars.

**J. Stewart, M. Walker:** Black Holes: the  
Outside Story.

Prices are subject to change without notice  
■ Prospectus with Classified Index of Authors  
and Titles Volumes 36—69 on request



Springer-Verlag Berlin · Heidelberg · New York

München · Johannesburg · London · New Delhi · Paris · Rio de Janeiro · Sydney · Tokyo · Wien

Communications in  
**Mathematical  
Physics**

Volume 35 · Number 3 · 1974

**Contents**

- D. Babbitt, E. Balslev Dilation-Analyticity and Decay Properties of Interactions 173
- I. W. Herbst On the Connectedness Structure of the Coulomb S-Matrix 181
- I. W. Herbst Classical Scattering with Long Range Forces 193
- J. T. Cannon Continuous Sample Paths in Quantum Field Theory 215
- S. Graffi, V. Grecchi Matrix Moment Methods in Perturbation Theory, Boson Quantum Field Models, and Anharmonic Oscillators 235
- C. J. Preston An Application of the GHS Inequalities to Show the Absence of Phase Transition for Ising Spin Systems 253
- M. Fannes, A. Verbeure On the Time Evolution Automorphisms of the CCR-Algebra for Quantum Mechanics 257

Indexed in Current Contents

Responsible for advertisements

Springer-Verlag  
Printers  
Printed in Germany

L. Siegel, D-1000 Berlin 15, Kurfürstendamm 237  
Telephone: (0 30) 8 82 10 31, Telex 01-85 411

Berlin · Heidelberg · New York  
Brühlsche Universitätsdruckerei, Gießen  
© by Springer-Verlag · Berlin · Heidelberg 1974