



SPRINGER-VERLAG  
BERLIN · HEIDELBERG · NEW YORK

# SPRINGER TRACTS IN MODERN PHYSICS

Ergebnisse der exakten Naturwissenschaften

Editor: G. Höhler

Editorial Board: P. Falk-Vairant, S. Flügge,  
J. Hamilton, F. Hund, H. Lehmann,  
E. A. Niekisch, W. Paul

## Volume 48

With 103 figures  
IV, 208 pages. In German  
1969  
Cloth DM 48,—; US \$ 12.00

### P. Grosse: Die Festkörpereigenschaften von Tellur

Introduction. – Das Kristallgitter. – Gitterdynamik, dielektrische Eigenschaften. – Die elektronische Bandstruktur. – Freie Ladungsträger und Transportgrößen. – Zusammenfassung der Ergebnisse. – Verzeichnis der verwendeten Symbole. – Literatur. Stichwortverzeichnis.

## Volume 49

With 62 figures  
III, 146 pages. 1969  
Cloth DM 44,—; US \$ 11.00

### H. Überall: Electron Scattering, Photoexcitation, and Nuclear Models

### H. Kleinert: Baryon Current Solving $SU(3)$ Charge-Current Algebra

## Volume 50

With 9 figures  
V, 156 pages. 1969  
Cloth DM 44,—; US \$ 11.00

### Current Algebra and Phenomenological Lagrange Functions

Invited Papers presented at the first international Summer School for Theoretical Physics, University of Karlsruhe (July 22–August 2, 1968)  
A. O. Barut: Dynamical Groups and their Currents;  
A Model for Strong Interactions. – H. Leutwyler: Current Algebra and Lightlike Charges. – V. F. Müller: Introduction to the Lagrangian Method. – H. Pietschmann: Introduction to the Method of Current Algebra. – H. Pilkuhn:  $S$ -Matrix Formulation of Current Algebra. – J. Rothleitner: Electromagnetic Mass Differences. – B. Stech: Nonleptonic Decays and Mass Differences of Hadrons. – P. Stichel: Current Algebra in the Framework of General Quantum Field Theory. – P. Stichel: Current Algebra and Renormalizable Field Theories. – P. Stichel: Introduction to Current Algebra. – J. Wess: Realisations of a Compact, Connected, Semisimple Lie Group. W. Zimmermann: Problems in Vector Meson Theories

■ Prospectus on request

# Communications in Mathematical Physics

Volume 14 · Number 1 · 1969

---

## Contents

Sherman, S.: Cosets and Ferromagnetic Correlation Inequalities	1
Flato, M., and D. Sternheimer: On an Infinite-Dimensional Group	5
Kallman, R. R.: A Remark on a Paper of J. F. Aarnes	13
Iagolnitzer, D., and H. P. Stapp: Macroscopic Causality and Physical Region Analyticity in S-Matrix Theory	15
Maison, H. D.: Symmetry Transformations from Local Currents	56
Hepp, K.: On the Equivalence of Additive and Analytic Renormalization	67
Lyakhovsky, V. D.: Generalized Symmetries and Infinitesimal Deformations of the Direct Sum $P \oplus A$	70
Lehmann, H. and K. Pohlmeier: Class of Field Theories in Two-Dimensional Space-Time with a $U_1 \times U_1$ Symmetry	78

Indexed in Current Contents

---