

Lecture Notes in Physics

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A selection

Editor: R. Martini

Volume 239

Geometric Aspects of the Einstein Equations and Integrable Systems

Proceedings of the Sixth Scheveningen Conference, Scheveningen, The Netherlands, August 26-31, 1984

1985. V, 344 pages. Soft cover DM 45,-. ISBN 3-540-16039-6

This meeting on geometric methods in mathematical physics was especially devoted to Einstein's equations of general relativity and to solitons. Ten contributions, mostly survey papers, should stimulate further research in these areas.

Volume 227

J.-P. Eckmann, P. Wittwer

Computer Methods and Borel Summability Applied to Feigenbaum's Equation

1985. XIV, 297 pages. Soft cover DM 36,50. ISBN 3-540-15215-6

The book presents an unusual blend of techniques in Mathematical Physics and rigorous computing which addresses researchers as well as advanced students.

Volume 226

Editor: N. Sanchez

Non-Linear Equations in Classical and Quantum Field Theory

Proceedings of a Seminar Series Held at DAPHE, Observatoire de Meudon, and LPTHE, Université Pierre et Marie Curie, Paris, Between October 1983 and October 1984

1985. VII, 400 pages. Soft cover DM 59,-. ISBN 3-540-15213-X

The volume is an excellent introduction into many of the most recent and most exciting problems of modern (classical as well as quantum) field theory.

Volume 223

H. Saller

Vereinheitlichte Feldtheorien der Elementarteilchen

Eine Einführung

1985. IX, 157 Seiten. Broschiert DM 23,-. ISBN 3-540-15188-5

Inhaltsübersicht: Leptonen und Quarks. – Fermionenmasse und Weyl-Spinoren. – Symmetriegruppen. – Eichtheorien. – Spontane Symmetriebrechung. – Massive Eichfelder. – Links-Rechts-symmetrische Modelle. – Die große Vereinheitlichung (GUT).

Volume 220

W. Dittrich, M. Reuter

Effective Lagrangians in Quantum Electrodynamics

1985. V, 244 pages. Soft cover DM 32,-. ISBN 3-540-15182-6

Contents: The Electron Propagator in a Constant External Magnetic Field. – The Mass Operator in a Constant External Magnetic Field. – The Polarization Tensor in a Constant External Magnetic Field

One-Loop Effective Lagrangian. – The Zeta Function. – Two-Loop Effective Lagrangian. – Renormalization Group Equations.

Volume 216

Editor: L. Garrido

Applications of Field Theory to Statistical Mechanics

Proceedings of the Sitges Conference on Statistical Mechanics Sitges, Barcelona/Spain, June 10-15, 1984

1985. VIII, 352 pages. Soft cover DM 52,-. ISBN 3-540-13911-7

This volume presents the statistical mechanics of glass and spin glasses, of surfaces, and various models for transition as well as rigorous results of critical behaviour.

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