

Lecture Notes in Physics

For information about Vols. 1–399
please contact your bookseller or Springer-Verlag

- Vol. 400: M. Dienes, M. Month, S. Turner (Eds.), *Frontiers of Particle Beams: Intensity Limitations*. Proceedings, 1990. IX, 610 pages. 1992.
- Vol. 401: U. Heber, C. S. Jeffery (Eds.), *The Atmospheres of Early-Type Stars*. Proceedings, 1991. XIX, 450 pages. 1992.
- Vol. 402: L. Boi, D. Flament, J.-M. Salanskis (Eds.), *1830-1930: A Century of Geometry*. VIII, 304 pages. 1992.
- Vol. 403: E. Balslev (Ed.), *Schrödinger Operators*. Proceedings, 1991. VIII, 264 pages. 1992.
- Vol. 404: R. Schmidt, H. O. Lutz, R. Dreizler (Eds.), *Nuclear Physics Concepts in the Study of Atomic Cluster Physics*. Proceedings, 1991. XVIII, 363 pages. 1992.
- Vol. 405: W. Hollik, R. Rückl, J. Wess (Eds.), *Phenomenological Aspects of Supersymmetry*. VII, 329 pages. 1992.
- Vol. 406: R. Kayser, T. Schramm, L. Nieser (Eds.), *Gravitational Lenses*. Proceedings, 1991. XXII, 399 pages. 1992.
- Vol. 407: P. L. Smith, W. L. Wiese (Eds.), *Atomic and Molecular Data for Space Astronomy*. VII, 158 pages. 1992.
- Vol. 408: V. J. Martínez, M. Portilla, D. Sáez (Eds.), *New Insights into the Universe*. Proceedings, 1991. XI, 298 pages. 1992.
- Vol. 409: H. Gausterer, C. B. Lang (Eds.), *Computational Methods in Field Theory*. Proceedings, 1992. XII, 274 pages. 1992.
- Vol. 410: J. Ehlers, G. Schäfer (Eds.), *Relativistic Gravity Research*. Proceedings, VIII, 409 pages. 1992.
- Vol. 411: W. Dieter Heiss (Ed.), *Chaos and Quantum Chaos*. Proceedings, XIV, 330 pages. 1992.
- Vol. 412: A. W. Clegg, G. E. Nedoluha (Eds.), *Astrophysical Masers*. Proceedings, 1992. XX, 480 pages. 1993.
- Vol. 413: Aa. Sandqvist, T. P. Ray (Eds.), *Central Activity in Galaxies. From Observational Data to Astrophysical Diagnostics*. XIII, 235 pages. 1993.
- Vol. 414: M. Napolitano, F. Sabetta (Eds.), *Thirteenth International Conference on Numerical Methods in Fluid Dynamics*. Proceedings, 1992. XIV, 541 pages. 1993.
- Vol. 415: L. Garrido (Ed.), *Complex Fluids*. Proceedings, 1992. XIII, 413 pages. 1993.
- Vol. 416: B. Baschek, G. Klare, J. Lequeux (Eds.), *New Aspects of Magellanic Cloud Research*. Proceedings, 1992. XIII, 494 pages. 1993.
- Vol. 417: K. Goebel, P. Kroll, H.-R. Petry (Eds.), *Quark Cluster Dynamics*. Proceedings, 1992. XI, 297 pages. 1993.
- Vol. 418: J. van Paradijs, H. M. Maitzen (Eds.), *Galactic High-Energy Astrophysics*. XIII, 293 pages. 1993.
- Vol. 419: K. H. Ploog, L. Tapfer (Eds.), *Physics and Technology of Semiconductor Quantum Devices*. Proceedings, 1992. VIII, 212 pages. 1993.
- Vol. 420: F. Ehlötzky (Ed.), *Fundamentals of Quantum Optics III*. Proceedings, 1993. XII, 346 pages. 1993.
- Vol. 421: H.-J. Röser, K. Meisenheimer (Eds.), *Jets in Extragalactic Radio Sources*. XX, 301 pages. 1993.
- Vol. 422: L. Päivärinta, E. Somersalo (Eds.), *Inverse Problems in Mathematical Physics*. Proceedings, 1992. XVIII, 256 pages. 1993.
- Vol. 423: F. J. China, L. M. González-Romero (Eds.), *Rotating Objects and Relativistic Physics*. Proceedings, 1992. XII, 304 pages. 1993.
- Vol. 424: G. F. Helminck (Ed.), *Geometric and Quantum Aspects of Integrable Systems*. Proceedings, 1992. IX, 224 pages. 1993.
- Vol. 425: M. Dienes, M. Month, B. Strasser, S. Turner (Eds.), *Frontiers of Particle Beams: Factories with e^+e^- Rings*. Proceedings, 1992. IX, 414 pages. 1994.
- Vol. 426: L. Mathelitsch, W. Plessas (Eds.), *Substructures of Matter as Revealed with Electroweak Probes*. Proceedings, 1993. XIV, 441 pages. 1994.
- Vol. 427: H. V. von Geramb (Ed.), *Quantum Inversion Theory and Applications*. Proceedings, 1993. VIII, 481 pages. 1994.
- Vol. 428: U. G. Jørgensen (Ed.), *Molecules in the Stellar Environment*. Proceedings, 1993. VIII, 440 pages. 1994.
- Vol. 429: J. L. Sanz, E. Martínez-González, L. Cayón (Eds.), *Present and Future of the Cosmic Microwave Background*. Proceedings, 1993. VIII, 233 pages. 1994.
- Vol. 430: V. G. Gurzadyan, D. Pfenniger (Eds.), *Ergodic Concepts in Stellar Dynamics*. Proceedings, 1993. XVI, 302 pages. 1994.
- Vol. 431: T. P. Ray, S. Beckwith (Eds.), *Star Formation and Techniques in Infrared and mm-Wave Astronomy*. XIV, 314 pages. 1994.
- Vol. 432: G. Belvedere, M. Rodonò, G. M. Simnett (Eds.), *Advances in Solar Physics*. Proceedings, 1993. XVII, 335 pages. 1994.
- Vol. 433: G. Contopoulos, N. Spyrou, L. Vlahos (Eds.), *Galactic Dynamics and N-Body Simulations*. XIV, 417 pages. 1994.
- Vol. 434: J. Ehlers, H. Friedrich (Eds.), *Canonical Gravity: From Classical to Quantum*. Proceedings, 1993. X, 267 pages. 1994.
- Vol. 435: E. Maruyama, H. Watanabe (Eds.), *Physics and Industry*. Proceedings, 1993. VII, 108 pages. 1994.
- Vol. 436: A. Alekseev, A. Hietamäki, K. Huitu, A. Morozov, A. Niemi (Eds.), *Integrable Models and Strings*. Proceedings, 1993. VII, 280 pages. 1994.

New Series m: Monographs

Vol. m 1: H. Hora, *Plasmas at High Temperature and Density*. VIII, 442 pages. 1991.

Vol. m 2: P. Busch, P. J. Lahti, P. Mittelstaedt, *The Quantum Theory of Measurement*. XIII, 165 pages. 1991.

Vol. m 3: A. Heck, J. M. Perdang (Eds.), *Applying Fractals in Astronomy*. IX, 210 pages. 1991.

Vol. m 4: R. K. Zeytounian, *Mécanique des fluides fondamentale*. XV, 615 pages, 1991.

Vol. m 5: R. K. Zeytounian, *Meteorological Fluid Dynamics*. XI, 346 pages. 1991.

Vol. m 6: N. M. J. Woodhouse, *Special Relativity*. VIII, 86 pages. 1992.

Vol. m 7: G. Morandi, *The Role of Topology in Classical and Quantum Physics*. XIII, 239 pages. 1992.

Vol. m 8: D. Funaro, *Polynomial Approximation of Differential Equations*. X, 305 pages. 1992.

Vol. m 9: M. Namiki, *Stochastic Quantization*. X, 217 pages. 1992.

Vol. m 10: J. Hoppe, *Lectures on Integrable Systems*. VII, 111 pages. 1992.

Vol. m 11: A. D. Yaghjian, *Relativistic Dynamics of a Charged Sphere*. XII, 115 pages. 1992.

Vol. m 12: G. Esposito, *Quantum Gravity, Quantum Cosmology and Lorentzian Geometries*. Second Corrected and Enlarged Edition. XVIII, 349 pages. 1994.

Vol. m 13: M. Klein, A. Knauf, *Classical Planar Scattering by Coulombic Potentials*. V, 142 pages. 1992.

Vol. m 14: A. Lerda, *Anyons*. XI, 138 pages. 1992.

Vol. m 15: N. Peters, B. Rogg (Eds.), *Reduced Kinetic Mechanisms for Applications in Combustion Systems*. X, 360 pages. 1993.

Vol. m 16: P. Christe, M. Henkel, *Introduction to Conformal Invariance and Its Applications to Critical Phenomena*. XV, 260 pages. 1993.

Vol. m 17: M. Schoen, *Computer Simulation of Condensed Phases in Complex Geometries*. X, 136 pages. 1993.

Vol. m 18: H. Carmichael, *An Open Systems Approach to Quantum Optics*. X, 179 pages. 1993.

Vol. m 19: S. D. Bogan, M. K. Hinders, *Interface Effects in Elastic Wave Scattering*. XII, 182 pages. 1994.

Vol. m 20: E. Abdalla, M. C. B. Abdalla, D. Dalmazi, A. Zadra, *2D-Gravity in Non-Critical Strings*. IX, 319 pages. 1994.

Vol. m 21: G. P. Berman, E. N. Bulgakov, D. D. Holm, *Crossover-Time in Quantum Boson and Spin Systems*. XI, 268 pages. 1994.

Vol. m 22: M.-O. Hongler, *Chaotic and Stochastic Behaviour in Automatic Production Lines*. V, 85 pages. 1994.

Vol. m 23: V. S. Viswanath, G. Müller, *The Recursion Method*. X, 259 pages. 1994.

Vol. m 24: A. Ern, V. Giovangigli, *Multicomponent Transport Algorithms*. XIV, 427 pages. 1994.