

D.P. Landau, K.K. Mon, H.-B. Schüttler (Eds.)

Computer Simulation Studies in Condensed Matter Physics III

Proceedings of the Third Workshop, Athens, GA, USA, February 12 – 16, 1990

1991. VIII, 215 pp. 101 figs. (Springer Proceedings in Physics, Vol. 53) Hardcover DM 89,- ISBN 3-540-53607-8

These proceedings provide researchers and students with an excellent overview of the most important recent progress in computer simulation studies in condensed matter physics. Topics include: Simulations of disorder and diffusion in metallic alloys.– Simulations of viscous flows, polymer dynamics and nucleation.– Histogram techniques.– Cellular automata.– Simulations of phase transitions in systems of molecules with internal degrees of freedom.– Variational and path-integral Monte Carlo studies of Hubbard models and high-temperature superconductivity.– Analytic continuation of imaginary-time Monte Carlo data.– Monte Carlo studies of two-dimensional quantum.– Antiferromagnets at low temperatures.

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Computer Simulation Studies in Condensed Matter Physics II

New Directions

Proceedings of the Second Workshop, Athens, GA, USA, February 20 – 24, 1989

1990. VIII, 189 pp. 88 figs. (Springer Proceedings in Physics, Vol. 45) Hardcover DM 89,- ISBN 3-540-51906-8

A broad overview of recent developments in computer simulation studies of condensed matter systems is provided in this book. Both classical and quantum systems are discussed. The contributions present new physical results and describe new simulation techniques and novel ways of interpreting simulational data. Topics covered include: Parallelization and vectorization.– Cellular automata, fractals and aggregation.– Damage spreading.– Molecular dynamics of proteins and rotating molecules in solids.– Quantum Monte Carlo studies of strongly correlated electron systems.

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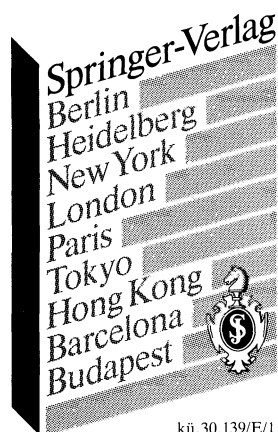
Computer Simulation Studies in Condensed Matter Physics

Recent Developments

Proceedings of the Workshop, Athens, GA, USA, February 15 – 26, 1988

1988. IX, 233 pp. 101 figs. (Springer Proceedings in Physics, Vol. 33) Hardcover DM 98,- ISBN 3-540-50449-4

Contents: Classical Systems.– Quantum Systems.– Computer Graphics.– Contributed Papers.– Index of Contributors.



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