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Autore	Samaj Ladislav <1959->
Titolo	Introduction to the statistical physics of integrable many-body systems / / Ladislav Samaj, Zoltan Bajnok [[electronic resource]]
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Descrizione fisica	1 online resource (xix, 504 pages) : digital, PDF file(s)
Classificazione	SCI040000
Disciplina	530.12015195
Soggetti	Quantum theory - Statistical methods Many-body problem
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Title from publisher's bibliographic system (viewed on 05 Oct 2015).
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Part I. Spinless Bose and Fermi Gases. 1. Particles with nearest-neighbour interactions: Bethe ansatz and the ground state; 2. Bethe ansatz: zero-temperature thermodynamics and excitations; 3. Bethe ansatz: finite-temperature thermodynamics; 4. Particles with inverse-square interactions; Part II. Quantum Inverse Scattering Method. 5. QISM: Yang-Baxter equation; 6. QISM: transfer matrix and its diagonalization; 7. QISM: treatment of boundary conditions; 8. Nested Bethe ansatz for spin-1/2 fermions with delta interactions; 9. Thermodynamics of spin-1/2 fermions with delta interactions; Part III. Quantum Spin Chains. 10. Quantum Ising chain in a transverse field; 11. XXZ Heisenberg chain: Bethe ansatz and the ground state; 12. XXZ Heisenberg chain: ground state in the presence of magnetic field; 13. XXZ Heisenberg chain: excited states; 14. XXX Heisenberg chain: thermodynamics with strings; 15. XXZ Heisenberg chain: thermodynamics without strings; 16. XYZ Heisenberg chain; 17.

Integrable isotropic chains with arbitrary spin; Part IV. Strongly Correlated Electrons. 18. Hubbard model; 19. Kondo effect; 20. Luttinger many-fermion model; 21. Integrable BCS superconductors; Part V. Sine-Gordon Model. 22. Classical sine-Gordon theory; 23. Conformal quantization; 24. Lagrangian quantization; 25. Bootstrap quantization; 26. UV-IR relation; 27. Exact finite volume description from XXZ; 28. Two-dimensional Coulomb gas.

Sommario/riassunto

Including topics not traditionally covered in literature, such as (1+1)-dimensional QFT and classical 2D Coulomb gases, this book considers a wide range of models and demonstrates a number of situations to which they can be applied. Beginning with a treatise of nonrelativistic 1D continuum Fermi and Bose quantum gases of identical spinless particles, the book describes the quantum inverse scattering method and the analysis of the related Yang-Baxter equation and integrable quantum Heisenberg models. It also discusses systems within condensed matter physics, the complete solution of the sine-Gordon model and modern trends in the thermodynamic Bethe ansatz. Each chapter concludes with problems and solutions to help consolidate the reader's understanding of the theory and its applications. Basic knowledge of quantum mechanics and equilibrium statistical physics is assumed, making this book suitable for graduate students and researchers in statistical physics, quantum mechanics and mathematical and theoretical physics.

2. Record Nr. UNINA9910808343503321

Titolo	Green building materials and energy-saving construction : selected, peer reviewed papers from the 2011 International Conference of Green Building Materials and Energy-saving Construction (GBMEC 2011) will be held on August 6, 2011 in Harbin, China / / edited by Zhenyu Du and Zheng Wang
Pubbl/distr/stampa	Durnten-Zurich, Switzerland ; ; Enfield, N.H. : , : Trans Tech, , [2011] ©2011
ISBN	3-03813-620-4
Descrizione fisica	1 online resource (267 p.)
Collana	Advanced materials research, , 1022-6680 ; ; volume 280
Altri autori (Persone)	DuZhenyu WangZheng
Disciplina	624
Soggetti	Building materials - Environmental aspects Buildings - Environmental engineering
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Formato	Materiale a stampa
Livello bibliografico	Monografia
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Green Building Materials and Energy-Saving Construction; Preface, Sponsors and Committees; Table of Contents; Effects of K2HPO4 on Fermentative Biohydrogen Production of Biohydrogenbacterium R3 Sp. nov.; Effect of Glutinous Rice Paste on Compressive Strength of Lime-Stabilized Soil; An Experimental Comparison of Compressive Strengths of Soils Stabilized with Enzyme and Ground Quicklime; Research on the Corrosion Resistance of Manganese Slag Cement Stabilized Macadam Base; Research on Residential District Energy-Saving Plan of Villages and Small Towns Administering and Comprehensive Utilization of Ash and Slag in Utility HoilerImpact of Rubber Particles on Heat-Shielding Property of Bridge Deck Pavement; The Parameter Assessment for Concrete Mixing Slag Powder Performance of Anti-Sulfate Erosion; 3B Rapid Transit: Yangzhou's Ecology-Based Urban Development Research; The Optimum Road Length in the Container Port; An Analysis on the Energy Conservation and Environmental Protection Facilities in Shanghai Expo; Application of a New Asphalt Pavement Maintenance Agent on Yuhe Road of Chongqing; Energy-Saving Measures of Architectural Design

The Holistic Urban Planning Approach of Urban Sustainable DevelopmentA Review of Construction Waste Treatment in China; Sulfate Resistance of Concrete under Restrained Condition; Analysis for Energy Savings Potential and Economics of Combined Air-Conditioning System with Temperature and Humidity Decoupled Treatment; Study on Fracture Toughness of Cement Treated Aggregate; Study on the Optimization of Depth-Span Ratio Design for Continuous Rigid Frame Bridge Girder; Implementing Sustainable Management in Construction Industry; Using Renewable and Recyclable Materials in Planning Green Building
On Natural Coloration of Concrete in Power Plant ConstructionResearch on Planning for Streetscape along National Highway; Building Energy Consumption Prediction Evaluation Model; How to Operate Energy-Saving Technologies of the Classroom in Hot Summer and Cold Winter Zone; Analysis of Energy-Saving Design of Glass Curtain Wall in the Terminal; Ecological Design Strategies and Feasibility Analysis on Structure of Mobile Building in the Mountain Area; Research on Influence Factors of Cooling Tower Performance
Synthesis of N-(3-Rosin Acyloxy-2-Hydroxyl) Propyl-N,N Diethanolamine and its Anti-Fungal ActivityExperimental Research of Testing Methods for Vibration Characteristics; Numerical Simulation and Analysis on the Heat Transfer of the Vertical Ground Heat Exchanger in Hydrous Soil; Application on the Stratified Air Conditioning System with Low Velocity in the Main Hall of the Temple; Study on Energy-Saving Renovation of Existing Heating Masonry-Concrete Residential Buildings; Experimental Study on Frost Resistance Durability of Concrete with Intensified Recycled Aggregates
Study to Wood Electromagnetic Shielding Composites Laminated with Aluminum Plates

Sommario/riassunto

This collection of peer-reviewed papers, on new research results in green building materials and energy-saving construction, brings together industrial and academic researchers, developers and users from around the world to - in effect - share their state-of-the-art results, to explore new areas of research and development and to discuss the emerging issues facing green building materials and energy-saving construction. Review from Book News Inc.: This collection of fifty-five articles on green building construction, representing the proceedings of the 2011 International Conference of Green Bu