

1. Record Nr.	UNINA9910958536103321
Titolo	Integrable quantum field theories and their application : proceedings of the APCTP Winter School : Cheju Island, Korea, 28 February-4 March 2000 // edited by Changrim Ahn, Chaiho Rim, Ryu Sasaki
Pubbl/distr/stampa	River Edge, NJ, : World Scientific, c2001
ISBN	9786611948054 9781281948052 1281948055 9789812799739 9812799737
Edizione	[1st ed.]
Descrizione fisica	1 online resource (viii, 344 p.) : ill
Altri autori (Persone)	AhnChangrim RimC SasakiR <1948-> (Ryu)
Disciplina	530.143
Soggetti	Quantum field theory Integral equations - Numerical solutions Mathematical physics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Applications of reflection amplitudes in Toda-type theories / C. Ahn, C. Kim and C. Rim -- Lax pairs and involutive Hamiltonians for CN and BCN Ruijsenaars-Schneider models / Kai Chen, B.-Y. Hou and W.-L. Yang -- Fateev's models and their applications / D. Controzzi and A. M. Tselik -- The ODE/IM correspondence / P. Dorey, C. Dunning and R. Tateo -- Integrable sigma models / P. Fendley -- Lorentz lattice gases and spin chains / M. J. Martins -- Quantum Calogero-Moser models for any root system / R. Sasaki -- Quasi-particles in conformal field theories for fractional quantum Hall systems / K. Schoutens and R. A. J. van Elburg -- Towards form factors in finite volume / F. A. Smirnov -- Static and dynamic properties of trapped Bose-Einstein condensates / T. Tsurumi, H. Morise and M. Wadati -- Integrability of the Calogero Model: Conserved quantities, the classical general solution and the quantum orthogonal basis / H. Ujino, A. Nishino and M. Wadati --

Sommario/riassunto

This volume includes several lecture notes on the fundamentals and elementary techniques of integrable field theories and on their applications to low-dimensional physics systems contributed by leading scientists in the respective fields. The main topics covered are various aspects of the thermodynamic Bethe ansatz, form factors, Calogero (and related) models, sigma models, conformal boundary conditions, etc. The volume presents both pedagogical material and a current research trend in the field.
