

1. Record Nr.	UNINA9910818335303321
Autore	Hirota Ryogo <1932->
Titolo	The direct method in soliton theory // Ryogo Hirota ; translated from Japanese and edited by Atsushi Nagai, Jon Nimmo, and Claire Gilson [[electronic resource]]
Pubbl/distr/stampa	Cambridge : , : Cambridge University Press, , 2004
ISBN	1-107-15013-2 1-280-54012-5 9786610540129 0-511-21484-7 0-511-21663-7 0-511-21126-0 0-511-31541-4 0-511-54304-2 0-511-21303-4
Descrizione fisica	1 online resource (xi, 200 pages) : digital, PDF file(s)
Collana	Cambridge tracts in mathematics ; ; 155
Disciplina	530.12/4
Soggetti	Solitons
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 (p. 195-197) and index.
Nota di contenuto	1. Bilinearization of soliton equations -- 2. Determinants and pfaffians -- 3. Structure of soliton equations -- 4. Backlund transformations -- Afterword -- References -- Index.
Sommario/riassunto	The bilinear, or Hirota's direct, method was invented in the early 1970s as an elementary means of constructing soliton solutions that avoided the use of the heavy machinery of the inverse scattering transform and was successfully used to construct the multisoliton solutions of many new equations. In the 1980s the deeper significance of the tools used in this method - Hirota derivatives and the bilinear form - came to be understood as a key ingredient in Sato's theory and the connections with affine Lie algebras. The main part of this book concerns the more modern version of the method in which solutions are expressed in the form of determinants and pfaffians. While maintaining the original

philosophy of using relatively simple mathematics, it has, nevertheless, been influenced by the deeper understanding that came out of the work of the Kyoto school. The book will be essential for all those working in soliton theory.

2. Record Nr.	UNINA9910483097203321
Titolo	Computational Methods in Systems Biology : 12th International Conference, CMSB 2014, Manchester, UK, November 17-19, 2014, Proceedings // edited by Pedro Mendes, Joseph O. Dada, Kieran Smallbone
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2014
ISBN	3-319-12982-1
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (XVIII, 266 p. 80 illus.)
Collana	Lecture Notes in Bioinformatics, , 2366-6331 ; ; 8859
Disciplina	570.285
Soggetti	Bioinformatics Computer science Computer simulation Software engineering Computer science - Mathematics Computational and Systems Biology Theory of Computation Computer Modelling Software Engineering Symbolic and Algebraic Manipulation
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Formalisms for Modelling Biological Processes -- Model Inference from Experimental Data -- Frameworks for Model Verification, Validation, and Analysis of Biological Systems.- Models and Their Biological Applications.- Computational Approaches for Synthetic Biology.- Flash Posters.

This book constitutes the proceedings of the 12th International Conference on Computational Methods in Systems Biology, CMSB 2014, held in Manchester, UK, in November 2014. The 16 regular papers presented together with 6 poster papers were carefully reviewed and selected from 31 regular and 18 poster submissions. The papers are organized in topical sections on formalisms for modeling biological processes, model inference from experimental data, frameworks for model verification, validation, and analysis of biological systems, models and their biological applications, computational approaches for synthetic biology, and flash posters.

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