

1. Record Nr.	UNISALENTO991001764529707536
Autore	International conference on Innovative materials and technology for construction and Restoration <1. : 2004 : Lecce, Italy>
Titolo	Proceedings of the First International Conference on Innovative materials and technology for construction and Restoration : Lecce, june 6-9 2004 / editors Antonio La Tegola & Antonio Nanni
Pubbl/distr/stampa	Napoli : Liguori, 2004
ISBN	8820736780 (vol.1/2)
Descrizione fisica	2 v. : ill. ; 24 cm
Altri autori (Persone)	La Tegola, Antonio Nanni, Antonio
Disciplina	691.9
Soggetti	Building materials
Lingua di pubblicazione	Italiano
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	v.1: Key-notes, Materials, Construction v.2: Strengthening and Restoration

2. Record Nr.	UNINA9910787647303321
Autore	Sakhnovich Alexander
Titolo	Inverse problems and nonlinear evolution equations : solutions, Darboux matrices and Weyl-Titchmarsh functions // by Alexander Sakhnovich, Lev Sakhnovich, Inna Roitberg
Pubbl/distr/stampa	Berlin ; ; Boston : , : Walter de Gruyter GmbH & Co., KG, , [2013] ©2013
Descrizione fisica	1 online resource (356 p.)
Collana	De Gruyter Studies in Mathematics ; ; 47
Altri autori (Persone)	RoitbergInna SakhnovichL. A
Disciplina	515.357 515/.357
Soggetti	Boundary value problems Darboux transformations Evolution equations, Nonlinear Functions Inverse problems (Differential equations) Matrices
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographies and index.
Nota di contenuto	Front matter -- Preface -- Notation -- Contents -- 0 Introduction -- 1 Preliminaries -- 2 Self-adjoint Dirac system: rectangular matrix potentials -- 3 Skew-self-adjoint Dirac system: rectangular matrix potentials -- 4 Linear system auxiliary to the nonlinear optics equation -- 5 Discrete systems -- 6 Integrable nonlinear equations -- 7 General GBDT theorems and explicit solutions of nonlinear equations -- 8 Some further results on inverse problems and generalized Bäcklund-Darboux transformation (GBDT) -- 9 Sliding inverse problems for radial Dirac and Schrödinger equations -- Appendices -- A General-type canonical system: pseudospectral and Weyl functions -- B Mathematical system theory -- C Krein's system -- D Operator identities corresponding to inverse problems -- E Some basic theorems -- Bibliography -- Index
Sommario/riassunto	This book is based on the method of operator identities and related

theory of S-nodes, both developed by Lev Sakhnovich. The notion of the transfer matrix function generated by the S-node plays an essential role. The authors present fundamental solutions of various important systems of differential equations using the transfer matrix function, that is, either directly in the form of the transfer matrix function or via the representation in this form of the corresponding Darboux matrix, when Bäcklund-Darboux transformations and explicit solutions are considered. The transfer matrix function representation of the fundamental solution yields solution of an inverse problem, namely, the problem to recover system from its Weyl function. Weyl theories of selfadjoint and skew-selfadjoint Dirac systems, related canonical systems, discrete Dirac systems, system auxiliary to the N-wave equation and a system rationally depending on the spectral parameter are obtained in this way. The results on direct and inverse problems are applied in turn to the study of the initial-boundary value problems for integrable (nonlinear) wave equations via inverse spectral transformation method. Evolution of the Weyl function and solution of the initial-boundary value problem in a semi-strip are derived for many important nonlinear equations. Some uniqueness and global existence results are also proved in detail using evolution formulas. The reading of the book requires only some basic knowledge of linear algebra, calculus and operator theory from the standard university courses.
