1. Record Nr. UNISA996466516903316

Autore	Bouc serge
Titolo	Biset Functors for Finite Groups [[electronic resource] /] / by serge Bouc
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2010
ISBN	1-280-39166-9 9786613569585 3-642-11297-8
Edizione	[1st ed. 2010.]
Descrizione fisica	1 online resource (X, 306 p. 4 illus.)
Collana	Lecture Notes in Mathematics, , 0075-8434 ; ; 1990
Classificazione	20J1519A2220C1520G05
Disciplina	512.2
Soggetti	Group theory Algebraic topology K-theory Group Theory and Generalizations Algebraic Topology K-Theory
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 and index.
Nota di contenuto	Examples -- General properties -- -Sets and (,)-Bisets -- Biset Functors -- Simple Functors -- Biset functors on replete subcategories -- The Burnside Functor -- Endomorphism Algebras -- The Functor -- Tensor Product and Internal Hom -- p-biset functors -- Rational Representations of -Groups -- -Biset Functors -- Applications -- The Dade Group.
Sommario/riassunto	This volume exposes the theory of biset functors for finite groups, which yields a unified framework for operations of induction, restriction, inflation, deflation and transport by isomorphism. The first part recalls the basics on biset categories and biset functors. The second part is concerned with the Burnside functor and the functor of complex characters, together with semisimplicity issues and an overview of Green biset functors. The last part is devoted to biset functors defined over p-groups for a fixed prime number p. This includes the structure of the functor of rational representations and rational p-biset functors. The last two chapters expose three

	applications of biset functors to long-standing open problems, in particular the structure of the Dade group of an arbitrary finite p-group.This book is intended both to students and researchers, as it gives a didactic exposition of the basics and a rewriting of advanced results in the area, with some new ideas and proofs.

2.

Record Nr.	UNINA9910299673603321
Autore	Wu Xinyuan
Titolo	Structure-preserving algorithms for oscillatory differential equations II / / by Xinyuan Wu, Kai Liu, Wei Shi
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2015
ISBN	3-662-48156-1
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (305 p.)
Disciplina	620
Soggetti	Applied mathematics Engineering mathematics Mathematical physics Computer science - Mathematics Mathematical and Computational Engineering Theoretical, Mathematical and Computational Physics Computational Science and Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Matrix-variation-of-constants formula -- Improved St ¨ormer-Verlet formulae with applications -- Improved Filon-type asymptotic methods for highly oscillatory differential equations -- Efficient energy-preserving integrators for multi-frequency oscillatory Hamiltonian systems -- An extended discrete gradient formula for multi-frequency oscillatory Hamiltonian systems -- Trigonometric Fourier collocation methods for multi-frequency oscillatory systems -- Error bounds for explicit ERKN integrators for multi-frequency oscillatory systems -- Error analysis of explicit TSERKN methods for highly oscillatory systems

-- Highly accurate explicit symplectic ERKN methods for multi-frequency oscillatory Hamiltonian systems -- Multidimensional ARKN methods for general multi-frequency oscillatory second-order IVPs -- A simplified Nystr¨om-tree theory for ERKN integrators solving oscillatory systems -- An efficient high-order explicit scheme for solving Hamiltonian nonlinear wave equations.

Sommario/riassunto

This book describes a variety of highly effective and efficient structure-preserving algorithms for second-order oscillatory differential equations. Such systems arise in many branches of science and engineering, and the examples in the book include systems from quantum physics, celestial mechanics and electronics. To accurately simulate the true behavior of such systems, a numerical algorithm must preserve as much as possible their key structural properties: time-reversibility, oscillation, symplecticity, and energy and momentum conservation. The book describes novel advances in RKN methods, ERKN methods, Filon-type asymptotic methods, AVF methods, and trigonometric Fourier collocation methods. The accuracy and efficiency of each of these algorithms are tested via careful numerical simulations, and their structure-preserving properties are rigorously established by theoretical analysis. The book also gives insights into the practical implementation of the methods. This book is intended for engineers and scientists investigating oscillatory systems, as well as for teachers and students who are interested in structure-preserving algorithms for differential equations.