

1. Record Nr.	UNINA9910957283303321
Titolo	Gröbner bases in symbolic analysis // edited by Markus Rosenkranz, Dongming Wang
Pubbl/distr/stampa	Berlin ; ; New York, : Walter De Gruyter, 2007
ISBN	9783110922752 3110922754
Edizione	[1st ed.]
Descrizione fisica	1 online resource (360 p.)
Collana	Radon series on computational and applied mathematics, , 1865-3707 ; ; 2
Classificazione	SD 2006
Altri autori (Persone)	RosenkranzMarkus <1971-> WangDongming <1961->
Disciplina	512.44 515.35
Soggetti	Grobner bases Differential equations Kongress Linz <2006>
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Based on talks delivered at the Special Semester on Grobner Bases and Related Methods, the D2 Workshop on Grobner Bases in Symbolic Analysis (May 8-17, 2006) hosted by the Radon Institute of Computational and Applied Mathematics of the Austrian Academy of Sciences in Linz, Austria.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Front matter -- Preface / Rosenkranz, Markus / Wang, Dongming -- Contents -- Gröbner Bases in Algebraic Analysis: New Perspectives for Applications / Pommaret, Jean-François -- Solving Systems of Linear Partial Difference and Differential Equations with Constant Coefficients Using Gröbner Bases / Oberst, Ulrich / Pauer, Franz -- Computation of the Strength of Systems of Difference Equations via Generalized Gröbner Bases / Levin, Alexander -- Editors' Note in Memory of Giuseppa Carrà Ferro -- A Survey on Differential Gröbner Bases / Ferro, Giuseppa Carrà -- Differential Elimination and Biological Modelling / Boulrier, François -- Janet Bases and Applications / Robertz, Daniel -- Spencer Cohomology, Differential Equations, and Pommaret Bases / Seiler, Werner M. -- Differential Invariants for Lie Pseudo-groups /

Olver, Peter / Pohjanpelto, Juha -- Invariant Theory and Differential Operators / Traves, William N. -- Compatibility Complexes for Overdetermined Boundary Problems / Krupchyk, Katsiaryna / Tuomela, Jukka -- On Initial Value Problems for Ordinary Differential-Algebraic Equations / Pritchard, F. Leon / Sit, William Y. -- Index

Sommario/riassunto

This volume contains survey articles and original research papers, presenting the state of the art on applying the symbolic approach of Grobner bases and related methods to differential and difference equations. The contributions are based on talks delivered at the Special Semester on Grobner Bases and Related Methods hosted by the Johann Radon Institute of Computational and Applied Mathematics, Linz, Austria, in May 2006.
