

1. Record Nr.	UNINA9910760255203321
Autore	Kauers Manuel
Titolo	D-Finite Functions / / by Manuel Kauers
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2023
ISBN	3-031-34652-1
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (669 pages)
Collana	Algorithms and Computation in Mathematics, , 2512-3254 ; ; 30
Disciplina	381 515.354
Soggetti	Discrete mathematics Differential equations Computer science - Mathematics Discrete Mathematics Differential Equations Symbolic and Algebraic Manipulation Equacions diferencials lineals Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Chapter. 1. Background and fundamental concepts -- Chapter. 2. The recurrence case in one variable -- Chapter. 3. The differential case in one variable -- Chapter. 4. Operators -- Chapter. 5. Summation and integration -- Answers to Exercises -- Software -- Notations -- References -- Index.
Sommario/riassunto	Defined as solutions of linear differential or difference equations with polynomial coefficients, D-finite functions play an important role in various areas of mathematics. This book is a comprehensive introduction to the theory of these functions with a special emphasis on computer algebra algorithms for computing with them: algorithms for detecting relations from given data, for evaluating D-finite functions, for executing closure properties, for obtaining various kinds of "explicit" expressions, for factoring operators, and for definite and indefinite symbolic summation and integration are explained in detail. The book comes "with batteries included" in the sense that it requires

no background in computer algebra as the relevant facts from this area are summarized in the beginning. This makes the book accessible to a wide range of readers, from mathematics students who plan to work themselves on D-finite functions to researchers who want to apply the theory to their own work. Hundreds of exercises invite the reader to apply the techniques in the book and explore further aspects of the theory on their own. Solutions to all exercises are given in the appendix. When algorithms for D-finite functions came up in the early 1990s, computer proofs were met with a certain skepticism. Fortunately, these times are over and computer algebra has become a standard tool for many mathematicians. Yet, this powerful machinery is still not as widely known as it deserves. This book helps to spread the word that certain tasks can be safely delegated to a computer algebra system, and also what the limitations of these techniques are.

2. Record Nr.	UNINA9910163165903321
Autore	Bruscino Dr. Tom
Titolo	Interview with Col. Joseph Buche - 101st Airborne Division
Pubbl/distr/stampa	San Francisco : , : Tannenber Publishing, , 2014 ©2014
ISBN	9781782893301 178289330X
Edizione	[1st ed.]
Descrizione fisica	1 online resource (26 pages)
Collana	Eyewitness To Modern War ; ; v.8
Disciplina	956.70443409200004
Soggetti	Personal narratives
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Intro -- TABLE OF CONTENTS -- Abstract -- Interview with COL Joseph Buche - 28 September 2006 -- REQUEST FROM THE PUBLISHER.
Sommario/riassunto	Having assumed command of 3rd Battalion, 187th Infantry Regiment, 101st Airborne Division on D-Day, 6 June 2003, Colonel Joseph Buche initially deployed around the Tall Afar border region before his unit redeployed on short notice to the Al Qaim area where it played a

central role in the success of Operation Rifles Blitz...Alerted that 3-187 should be prepared for operations in Najaf or Karbala then Fallujah, the operation in and around the Iraqi-Syrian border town of Al Qaim came as a surprise. "It came out of the blue" said Buche. "I'd never heard of Husaybah or Al Qaim, Iraq." Iron Hammer - 3-187's piece of Rifles Blitz - proved challenging, including the move into a new area of operations and the inherent tensions between the missions assigned...He emphasized several factors which contributed to the success of Rifles Blitz, including the reliability of their interpreters, the integration of psychological operations and information operations into the unit's scheme of maneuver, the ability to mass a lot of soldiers on the ground, the capability of trusted staff officers, and the matching of unit missions with the personalities of unit commanders. The need to establish a position of strength visible to the Iraqi people, he insists, is an imperative for successfully dealing with the populace..."Part of what I wanted to do" Buche added, "was to let any bad guys know that hell was coming to breakfast." Looking back, he proudly boasts that the operation was so successful that the enemy simply failed to fight. "I didn't have a hard time with not having any firefights in that operation at all. I took pride in it because, to me, that was evidence that those company commanders and troopers out there had maneuvered so well that the enemy never found themselves in a position of advantage where they wanted to engage us."

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