

1. Record Nr.	UNINA9910300118903321
Titolo	Advances in Computer Algebra : In Honour of Sergei Abramov's' 70th Birthday, WWCA 2016, Waterloo, Ontario, Canada // edited by Carsten Schneider, Eugene Zima
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2018
ISBN	3-319-73232-3
Edizione	[1st ed. 2018.]
Descrizione fisica	1 online resource (xi, 280 pages) : illustrations
Collana	Springer Proceedings in Mathematics & Statistics, , 2194-1009 ; ; 226
Disciplina	004.0151
Soggetti	Difference equations Functional equations Sequences (Mathematics) Special functions Computer software Computer science—Mathematics Mathematical physics Difference and Functional Equations Sequences, Series, Summability Special Functions Mathematical Software Mathematics of Computing Theoretical, Mathematical and Computational Physics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Sergei A. Abramov and Moulay A. Barkatou, On Strongly Non-Singular Polynomial Matrices -- Moulay Barkatou, Thomas Cluzeau and Carole El Bacha, On the Computation of Simple Forms and Regular Solutions of Linear Difference Systems -- Johannes Blumlein, Mark Round and Carsten Schneider, Rened Holonomic Summation Algorithms in Particle Physics -- Shaoshi Chen, Bivariate Extensions of Abramov's Algorithm for Rational Summation -- Hao Du, Hui Huang and Ziming Li, A q-Analogue of the Modied Abramov-Petkovsek Reduction --

Manuel Kauers and Doron Zeilberger, Factorization of C-nite Sequences -- Johannes Middeke and Carsten Schneider, Denominator Bounds for Systems of Recurrence Equations using q -Extensions -- Evans Doe Ocansey and Carsten Schneider, Representing $(q-)$ Hypergeometric Products and Mixed Versions in Difference Rings -- Anton A. Panferov, Linearly Satellite Unknowns in Linear Differential Systems -- Peter Paule and Silviu Radu, Rogers-Ramanujan Functions, Modular Functions, and Computer Algebra.

Sommario/riassunto

This book discusses the latest advances in algorithms for symbolic summation, factorization, symbolic-numeric linear algebra and linear functional equations. It presents a collection of papers on original research topics from the Waterloo Workshop on Computer Algebra (WWCA-2016), a satellite workshop of the International Symposium on Symbolic and Algebraic Computation (ISSAC'2016), which was held at Wilfrid Laurier University (Waterloo, Ontario, Canada) on July 23–24, 2016. This workshop and the resulting book celebrate the 70th birthday of Sergei Abramov (Dorodnicyn Computing Centre of the Russian Academy of Sciences, Moscow), whose highly regarded and inspirational contributions to symbolic methods have become a crucial benchmark of computer algebra and have been broadly adopted by many Computer Algebra systems.
