

COMPUTER ALGEBRA 2006

Latest Advances in Symbolic Algorithms

Proceedings of the Waterloo Workshop in Computer Algebra 2006

Ontario, Canada 10 – 12 April 2006

Editors

Ilias Kotsireas & Eugene Zima

Wilfrid Laurier University, Canada

Written by world-renowned experts, the book is a collection of tutorial presentations and research papers catering to the latest advances in symbolic summation, factorization, symbolic-numeric linear algebra and linear functional equations. The papers were presented at a workshop celebrating the 60th birthday of Sergei Abramov (Russia), whose highly influential contributions to symbolic methods are adopted in many leading computer algebra systems.

Contents: Hypergeometric Summation Revisited (*S Abramov & M Petkovšek*); Factoring Systems of Linear Functional Equations Using Eigenrings (*M A Barkatou*); Beta-Expansions of Pisot and Salem Numbers (*K G Hare*); Logarithmic Functional and the Weil Reciprocity Law (*A Khovanskii*); The Vector Rational Function Reconstruction Problem (*Z Olesh, A Storjohann*); Two Families of Algorithms for Symbolic Polynomials (*S M Watt*); and other papers.

Readership: Academics and researchers in computer science, applied mathematics, discrete mathematics, physics and engineering.

Key Features

- Presents the most recent developments of fast and robust algorithms in many areas of symbolic computations
- Largely devoted to accumulative reviews describing current state of the art in different areas of computer algebra
- Contributors are world leading experts in computer algebra — S Abramov, A Khovanskii, M Petkovšek, D Zeilberger, and others

220pp (approx.)

Fall 2007

978-981-270-200-5

US\$54

£29

981-270-200-8

