Record Nr. UNINA9910741146403321 Mathematics, computer science and logic - a never ending story **Titolo** [[electronic resource]]: the Bruno Buchberger festschrift / / edited by Peter Paule Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa **ISBN** 3-319-00966-4 Edizione [1st ed. 2013.] Descrizione fisica 1 online resource (120 p.) Disciplina 004 004.0151 005.1 510 Soggetti Algorithms Mathematical logic Computer software Software engineering Computers Mathematical Logic and Foundations Mathematical Software Software Engineering/Programming and Operating Systems Theory of Computation 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. Nota di contenuto Preface -- Henk Barendregt: Foundations of Mathematics from the Perspective of Computer Verification -- Manfred Broy: On the Role of Logic and Algebra in Software Engineering -- Stephen Wolfram: New Directions in the Foundations of Mathematics (2002) -- Doron Zeilberger: Towards a Symbolic Computational Philosophy (and Methodology!) for Mathematics. This book presents four mathematical essays which explore the Sommario/riassunto

foundations of mathematics and related topics ranging from philosophy and logic to modern computer mathematics. While

connected to the historical evolution of these concepts, the essays place strong emphasis on developments still to come. The book originated in a 2002 symposium celebrating the work of Bruno Buchberger, Professor of Computer Mathematics at Johannes Kepler University, Linz, Austria, on the occasion of his 60th birthday. Among many other accomplishments, Professor Buchberger in 1985 was the founding editor of the Journal of Symbolic Computation; the founder of the Research Institute for Symbolic Computation (RISC) and its chairman from 1987-2000; the founder in 1990 of the Softwarepark Hagenberg, Austria, and since then its director. More than a decade in the making, Mathematics, Computer Science and Logic - A Never Ending Story includes essays by leading authorities, on such topics as mathematical foundations from the perspective of computer verification; a symbolic-computational philosophy and methodology for mathematics; the role of logic and algebra in software engineering; and new directions in the foundations of mathematics. These inspiring essays invite general, mathematically interested readers to share stateof-the-art ideas which advance the never ending story of mathematics, computer science and logic. Mathematics, Computer Science and Logic - A Never Ending Story is edited by Professor Peter Paule, Bruno Buchberger's successor as director of the Research Institute for Symbolic Computation.