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Note generali	Description based upon print version of record.
Nota di contenuto	Frontmatter -- Contents -- Introduction -- Chapter 1 First Concepts -- Chapter 2 Ringoids and Vectoids -- Chapter 3 Definition of Computer Arithmetic -- Chapter 4 Interval Arithmetic -- Chapter 5 Floating-Point Arithmetic -- Chapter 6 Implementation of Floating-Point Arithmetic on a Computer -- Chapter 7 Hardware Support for Interval Arithmetic -- Chapter 8 Scalar Products and Complete Arithmetic -- Chapter 9 Sample Applications -- Backmatter
Sommario/riassunto	The present book deals with the theory of computer arithmetic, its implementation on digital computers and applications in applied mathematics to compute highly accurate and mathematically verified results. The aim is to improve the accuracy of numerical computing (by implementing advanced computer arithmetic) and to control the quality of the computed results (validity). The book can be useful as high-level undergraduate textbook but also as reference work for scientists researching computer arithmetic and applied mathematics.