



Real-world information is imperfect and is usually described in natural language (NL). Moreover, this information is often partially reliable and a degree of reliability is also expressed in NL. In view of this, the concept of a Z -number is a more adequate concept for the description of real-world information. The main critical problem that naturally arises in processing Z -numbers-based information is the computation with Z -numbers. Nowadays, there is no arithmetic of Z -numbers suggested in existing literature.

This book is the first to present a comprehensive and self-contained theory of Z -arithmetic and its applications. Many of the concepts and techniques described in the book, with carefully worked-out examples, are original and appear in the literature for the first time.

The book will be helpful for professionals, academics, managers and graduate students in fuzzy logic, decision sciences, artificial intelligence, mathematical economics, and computational economics.