



Mathematics > General Mathematics

# Algebraic Structures using Natural Class of Intervals

W. B. Vasantha Kandasamy, Florentin Smarandache

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This book has eleven chapters. Chapter one describes all types of natural class of intervals and the arithmetic operations on them. Chapter two introduces the semigroup of natural class of intervals using  $R$  or  $Z_n$  and study the properties associated with them. Chapter three studies the notion of rings constructed using the natural class of intervals. Matrix theory using the special class of intervals is analyzed in chapter four of this book. Chapter five deals with polynomials using interval coefficients. New types of rings of natural intervals are introduced and studied in chapter six. The notion of vector space using natural class of intervals is built in chapter seven. In chapter eight fuzzy natural class of intervals are introduced and algebraic structures on them is built and described. Algebraic structures using natural class of neutrosophic intervals are developed in chapter nine. Chapter ten suggests some possible applications. The final chapter proposes over 200 problems of which some are at research level and some difficult and others are simple.

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