



Mathematics of Fuzzy Sets Logic, Topology, and Measure Theory The Handbooks of Fuzzy Sets

By S. E. Rodabaugh

Springer. Hardcover. Condition: New. 716 pages. Dimensions: 9.4in. x 6.3in. x 1.8in. Mathematics of Fuzzy Sets: Logic, Topology and Measure Theory is a major attempt to provide much-needed coherence for the mathematics of fuzzy sets. Much of this book is new material required to standardize this mathematics, making this volume a reference tool with broad appeal as well as a platform for future research. Fourteen chapters are organized into three parts: mathematical logic and foundations (Chapters 1-2), general topology (Chapters 3-10), and measure and probability theory (Chapters 11-14). Chapter 1 deals with non-classical logics and their syntactic and semantic foundations. Chapter 2 details the lattice-theoretic foundations of image and preimage powerset operators. Chapters 3 and 4 lay down the axiomatic and categorical foundations of general topology using lattice-valued mappings as a fundamental tool. Chapter 3 focuses on the fixed-basis case, including a convergence theory demonstrating the utility of the underlying axioms. Chapter 4 focuses on the more general variable-basis case, providing a categorical unification of locales, fixed-basis topological spaces, and variable-basis compactifications. Chapter 5 relates lattice-valued topologies to probabilistic topological spaces and fuzzy neighborhood spaces. Chapter 6 investigates the important role of separation axioms in lattice-valued topology from the perspective of...

DOWNLOAD



READ ONLINE
[2.43 MB]

Reviews

Very good electronic book and valuable one. It is actually written in basic words instead of difficult to understand. I discovered this ebook from my i and dad encouraged this publication to discover.

-- Prof. Jevon Frami

Absolutely essential read book. It is probably the most incredible pdf i have got read through. You will like the way the writer publish this pdf.

-- Griffin Hirthe