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Complex Fuzzy Rough Sets and Their Applications

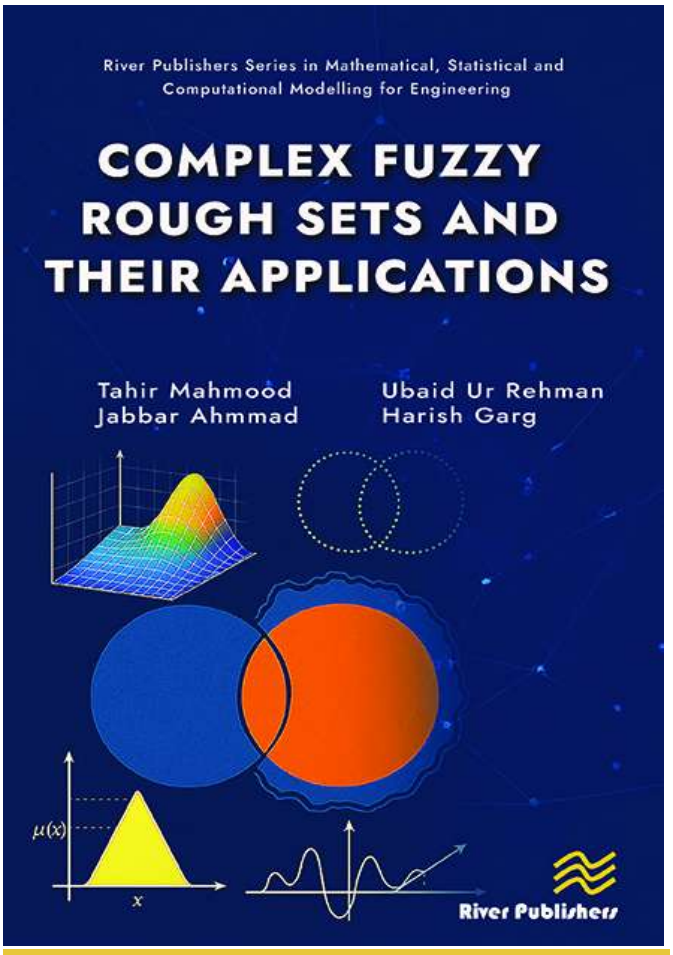
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This book explains the foundational principles of fuzzy algebra, including fuzzy sets, fuzzy operations, and fuzzy relations. It shows how fuzzy algebra can be applied in artificial intelligence, particularly in areas such as decision-making, pattern recognition, and machine learning, where uncertainty and imprecision are common. It demonstrates the use of fuzzy algebra in engineering disciplines, such as control systems, cybersecurity, signal processing, and robotics, where fuzzy logic can be used to model and solve complex and real-world problems. This makes the book valuable not just for process engineers, but also for researchers in multiple domains.

This book is designed to familiarize data science, machine learning and other engineering professionals, in a relatively simple and easy to understand fashion, with decision making skills founded on calculations and case study based quantitative analysis.

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