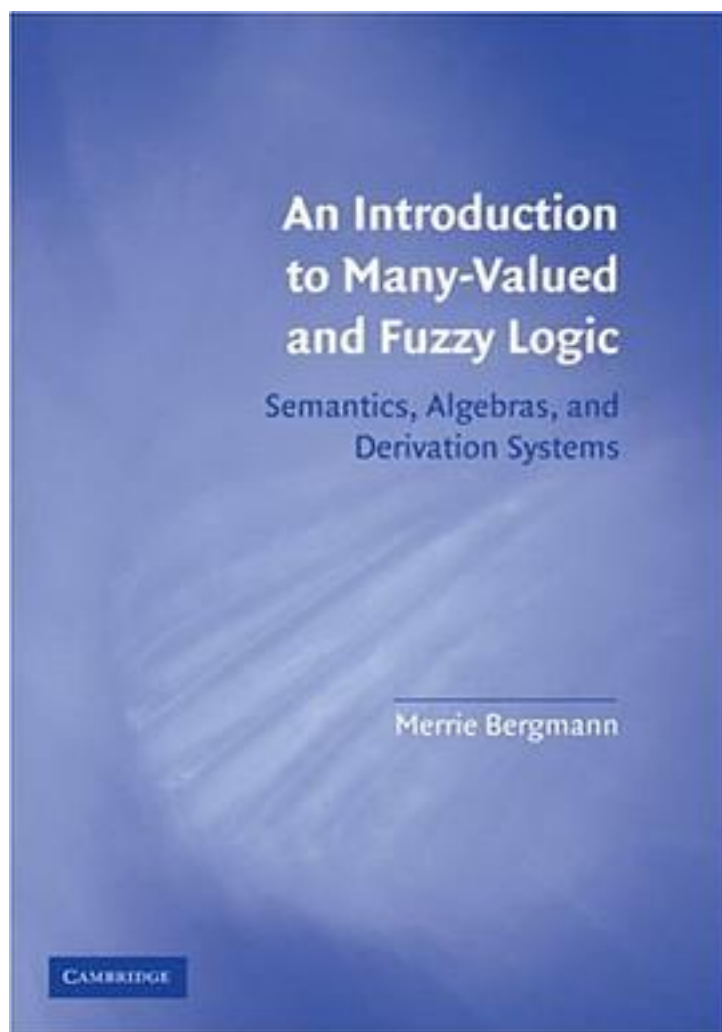# An Introduction to Many-Valued and Fuzzy Logic

[An Introduction to Many-Valued and Fuzzy Logic_下载链接1_](#)

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出版者:Cambridge University Press

出版时间:2008-4-24

装帧:Paperback

isbn:9780521707572

Professor Merrie Bergmann presents an accessible introduction to the subject of

many-valued and fuzzy logic designed for use on undergraduate and graduate courses in non-classical logic. Bergmann discusses the philosophical issues that give rise to fuzzy logic - problems arising from vague language - and returns to those issues as logical systems are presented. For historical and pedagogical reasons, three-valued logical systems are presented as useful intermediate systems for studying the principles and theory behind fuzzy logic. The major fuzzy logical systems - Lukasiewicz, Godel, and product logics - are then presented as generalisations of three-valued systems that successfully address the problems of vagueness. A clear presentation of technical concepts, this book includes exercises throughout the text that pose straightforward problems, that ask students to continue proofs begun in the text, and that engage students in the comparison of logical systems.

作者介绍:

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标签

逻辑学

模糊逻辑

多值逻辑

哲学

评论

fuzzy logic被提出的初衷是解决vagueness问题(以堆垛悖论为代表)
通过将构成论证的原子命题的predicate划分出degree of membership
由此命题的真值也具有不同degree 这与概率逻辑相通 但又具有本质的不同
因为概率逻辑并非基于对命题的谓词的集合的程度划分 而是基于命题整体的为真概率
这种为真的概率更多取决于世界的情况 而非词语的模糊性

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书评

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