《数理逻辑》

图书基本信息

书名：《数理逻辑》

13位ISBN编号：9787506292276

10位ISBN编号：7506292270

出版时间：2008-5

出版社：世界图书出版公司

作者：艾宾浩斯 (Ebbinghaus H.D.),J. Flum,W. Thomas

页数：289

版权说明：本站所提供下载的PDF图书仅提供预览和简介以及在线试读，请支持正版图书。

更多资源请访问：www.tushu000.com

《数理逻辑》

内容概要

《数理逻辑(第2版)》主要内容：What is a mathematical proof？ How can proofs be justified？ Are there limitations to provability？ To what extent can machines carry out mathematical proofs？Only in this century has there been success in obtaining substantial and satisfactory answers. The present book contains a systematic discussion of these results. The investigations are centered around first-order logic. Our first goal is' Godel's completeness theorem， which shows that the consequence relation coincides with formal provability： By means of a calculus consisting of simple formal inference rules， one can obtain all consequences of a given axiom system (and in particular， imitate all mathematical proofs)

《数理逻辑》

作者简介

作者：(德国)艾宾浩斯(Ebbinghaus H.D.)

《数理逻辑》

书籍目录

Preface
PART A
Ⅰ Introduction
1.An Example from Group Theory
2.An Example from the Theory of Equivalence Relations
3.A Preliminary Analysis
4.Preview
Ⅱ Syntax of First-Order Languages
1.Alphabets
2.The Alphabet of a First-Order Language
3.Terms and Formulas in First-Order Languages
4.Induction in the Calculus of Terms and in the Calculus of Formulas
5.Free Variables and Sentences
Ⅲ Semantics of First-Order Languages
1.Structures and Interpretations
2.Standardization of Connectives
3.The Satisfaction Relation
4.The Consequence Relation
5.Two Lemmas on the Satisfaction Relation
6.Some simple formalizations
7.Some remarks on Formalizability
8.Substitution
Ⅳ A Sequent Calculus
1. Sequent Rules
2. Structural Rules and Connective Rules
3. Derivable Connective Rules
4. Quantifier and Equality Rules
5. Further Derivable Rules and Sequents
6. Summary and Example
7. Consistency
Ⅴ The Completeness Theorem
1. Henkin ’ S Theorem.
2. Satisfiability of Consistent Sets of Formulas （the Countable Casel
3. Satisfiability of Consistent Sets of Formulas （the General Case）
4. The Completeness Theorem
Ⅵ The LSwenheim-Skolem and the Compactness Theorem
1. The L6wenheim-Skolem Theorem.
2. The Compactness Theorem
3. Elementary Classes
4. Elementarily Equivalent Structures
Ⅶ The Scope of First-Order Logic
1. The Notion of Formal Proof
2. Mathematics Within the Framework of Fimt—Order Logic
3. The Zermelo-Fraenkel Axioms for Set Theory.
4. Set Theory as a Basis for Mathematics
Ⅷ Syntactic Interpretations and Normal Forms
1. Term-Reduced Formulas and Relational Symbol Sets

2. Syntactic Interpretations
3. Extensions by Definitions
4. Normal Forms
PART B
IX Extensions of First-order logic
X Limitations of the Formal Method
XI Free Models and Logic Programming
XII An Algebraic Characterization of Elementary Equivalence
X III Lindstrom ’ s Theorems
References
Symbol Index
Subject Index

《数理逻辑》

编辑推荐

《数理逻辑(第2版)》由世界图书出版公司出版。A short digression into model theory will help us to analyze the expressive power of the first-order language， and it will turn out that there are certain deficiencies. For example， the first-order language does not allow the formulation of an adequate axiom system for arithmetic or analysis. On the other hand， this di~~culty can be overcome——-even in the framework of first-order logic——by developing mathematics in set-theoretic terms. We explain the prerequisites from set theory necessary for this purpose and then treat the subtle relation between logic and set theory in a thorough manner.Godel‘s incompleteness theorems are presented in connection with several related results （such as Trahtenbrot’s theorem） which all exemplify the limitatious of machine-oriented proof methods. The notions of computability theory that are relevant to this discussion are given in detail.

《数理逻辑》

精彩短评

1、艰难读到Sequent calculus。自勉，要看完
2、经典著作，偏数学的数理逻辑导论。
3、哥德尔完全性和不完全性的证明讲得非常透彻、细致，非常适合大学生阅读！！第二版加上了逻辑程序一章，使内容更加充实。
4、内容全面翔实，同样多的内容往常可能要用两三本数去凑——不是偏重语形就是偏重语义。
5、非常好的数理逻辑入门，本科数学系大二适用（最好学完抽代）
6、对于这本书我只能无奈而又悻悻地说一句：我擦。
7、挺不错的，全英的啊。。。不过不是我看到，我男友看的，他说这本书很好！
8、复习的时候重读才发现真是没有一句废话而且很多很小的细节都照顾得很好。偏数学，不适合单独学习。
9、没读完就被同学借走不还
10、讀了前半部分，這東西真讓我..沒興趣。畢竟是“ 人類的理論 ”。
11、深入不浅出

《数理逻辑》

精彩书评

1、北大以此作为研究生的数理逻辑教材。邢滔滔老师的《数理逻辑》也脱胎于此。书中详略得当，对于基础一点而过，适合有些逻辑基础的人来学习。书中的推演系统是矢列演算，这也是我在国内教材中从未见到过的。通过学习以及与公理系统和自然推演系统的对比，可以更有助于整体的提高。后面则是设计递归论，模型论，证明论等内容。暂未读完，回头再补评价。

《数理逻辑》

版权说明

本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问:www.tushu000.com