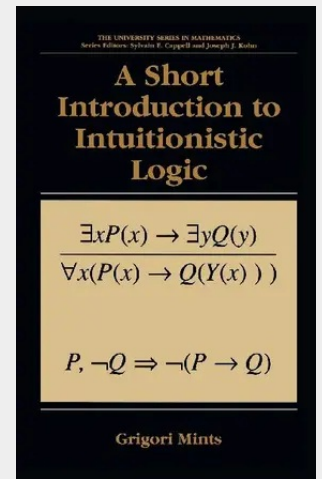


A Short Introduction to Intuitionistic Logic

Intuitionistic logic is presented here as part of familiar classical logic which allows mechanical extraction of programs from proofs. To make the material more accessible, basic techniques are presented first for propositional logic; Part II contains extensions to predicate logic. This material provides an introduction and a safe background for reading research literature in logic and computer science as well as advanced monographs. Readers are assumed to be familiar with basic notions of first order logic. One device for making this book short was inventing new proofs of several theorems. The presentation is based on natural deduction. The topics include programming interpretation of intuitionistic logic by simply typed lambda-calculus (Curry-Howard isomorphism), negative translation of classical into intuitionistic logic, normalization of natural deductions, applications to category theory, Kripke models, algebraic and topological semantics, proof-search methods, interpolation theorem. The text developed from material for several courses taught at Stanford University in 1992-1999.

Intuitionistic logic is presented here as part of familiar classical logic which allows mechanical extraction of programs from proofs. To make the material more accessible, basic techniques are presented first for propositional logic; Part II contains extensions to predicate logic. This material provides an introduction and a safe background for reading research literature in logic and computer science as well as advanced monographs. Readers are assumed to be familiar with basic notions of first order logic. One device for making this book short was inventing new proofs of several theorems. The presentation is based on natural deduction. The topics include programming interpretation of intuitionistic logic by simply typed lambda-calculus (Curry-Howard isomorphism), negative translation of classical into intuitionistic logic, normalization of natural deductions, applications to category theory, Kripke models, algebraic and topological semantics, proof-search methods, interpolation theorem. The text developed from material for several courses taught at Stanford University in 1992-1999.



149,79 €

139,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9780306463945

Medium: Buch

ISBN: 978-0-306-46394-5

Verlag: Springer US

Erscheinungstermin: 31.10.2000

Sprache(n): Englisch

Auflage: 2000

Serie: University Series in Mathematics

Produktform: Gebunden

Gewicht: 389 g

Seiten: 131

Format (B x H): 160 x 241 mm

