
Perspectives in Mathematical Logic

Ω -Group: R. O. Gandy, H. Hermes, A. Levy,
G.H. Müller, G.E. Sacks, D.S. Scott

J. Barwise

Admissible Sets and Structures

An Approach to Definability Theory

1975. 22 figures, 5 tables. XIV, 394 pages
ISBN 3-540-07451-1

From the reviews:

"... This book is beautifully and clearly written, and is a pleasure to read. Any student of admissible sets and definability theory, indeed any logician, should have a copy within easy reach; he will not only get the facts, but gain from the insight of the author in the field he has done so much to create and bring to this degree of maturity..."

Mathematical Reviews

J.E. Fenstad

General Recursion Theory

An Axiomatic Approach

1980. XI, 225 pages. ISBN 3-540-09349-4

Contents: Pons Asinorum: On the Choice of Correct Notions for the General Theory. - **General Theory: Combinatorial Part. General Theory: Subcomputations.** - Finite Theories on One Type. Finite Theories on Two Types. - **Infinite Theories:** Admissible Prewellorderings. Degree Structure. - **Higher Types:** Computations Over Two Types. Set Recursion and Higher Types. - References. - Notation. - Index.

P.G.Hinman

Recursion-Theoretic Hierarchies

1978. XII, 480 pages. ISBN 3-540-07904-1

Contents: Basic notions of definability: Groundwork. Ordinary recursion theory. Hierarchies and definability. - **The analytical and projective hierarchies:** The first level. Δ_1^1 and beyond. - Generalized recursion theories: Recursion in a type-2 functional. Recursion in a type-3 functional. Recursion on ordinals. - Epilogue.

A. Levy

Basic Set Theory

1979. 20 figures, 1 table. XIV, 391 pages.
ISBN 3-540-08417-7

Contents: Pure Set Theory: The Basic Notions. Order and Well-Foundedness. Cardinal Numbers. The Ordinals. The Axiom of Choice and Some of Its Consequences. - **Applications and Advanced Topics:** A Review of Point Set Topology. The Real Spaces. Boolean Algebras. Infinite Combinatorics and Large Cardinals. - Appendix. - Bibliography. - Index of Notation. - Index.

M.Lerman

Degrees of Unsolvability

Local and Global Theory

1983. 56 figures. XIII, 307 pages
ISBN 3-540-12155-2

Contents: Introduction. - The Structure of the Degrees: Recursive Functions. Embeddings and Extensions of Embeddings in the Degrees. The Jump Operator. High/Low Hierarchies. - Countable Ideals of Degrees: Minimal Degrees. Finite Distributive Lattices. Finite Lattices. Countable Usls. - Initial Segments of D and the Jump Operator: Minimal Degrees and High/Low Hierarchies. Jumps of Minimal Degrees. Bounding Minimal Degrees with Recursively Enumerable Degrees. Initial Segments of $\mathcal{D}[0, 0']$. - Appendix A: Coding into Structures and Theories. - Appendix B: Lattice Tables and Representation Theorems. - References. - Notation Index. - Subject Index.



Springer-Verlag Berlin Heidelberg New York Tokyo

Y.I. Man

A Course in Mathematical Logic

Translated from the Russian by
N. Koblitz

1977. 1 figure. XIII, 286 pages
(Graduate Texts in Mathematics,
Volume 53). ISBN 3-540-90243-0

From the reviews:

"...a remarkable addition to the literature in this field. ...covers an unusual wide range of material. ...the elegance of the style is striking. Most of the time the proof does not only show the truth of the theorem, it explains the theorem. Finally it should be remarked that besides its usefulness it is a pleasure to read this book. *Zentralblatt für Mathematik*

J. Malitz

Introduction to Mathematical Logic

Set Theory - Computable Functions -
Model Theory

1979. 2 figures, 1 table. XII, 198 pages.
(Undergraduate Texts in Mathematics).
ISBN 3-540-90346-1

From the reviews:

"...The book is written in a fresh readable style. The last Chapter of each part gives a perspective of recent trends in the field. The text is accompanied by a number of instructive exercises. The book contains a reasonable portion of results from three different branches of Logic and Foundations and can be recommended as an introductory text to mathematical logic.
Zentralblatt für Mathematik

D. van Dalen

Logic and Structure

Universitext

2nd edition. 1983. X, 207 pages

ISBN 3-540-12831-X

From the reviews of the 1st edition:

"Mathematical logic, after remaining for many years the preserve of a comparatively small number of philosophically inclined mathematicians, began in the 1950s to develop into a major branch of mathematics. In recent years it has grown explosively in extent and importance, and it is now beginning to yield significant results in more traditional areas of mathematics. Van Dalen's book offers to the ordinary mathematician an up-to-date treatment of mathematical logic that is reasonably comprehensive and yet does not demand prior knowledge of the subject. ...The appearance of such a book as this is very much to be welcomed, as any mathematician who wants a quick but reliable introduction to logic and model theory, which will give him some idea of their usefulness within mathematics, can now find what he wants here, in the modest compass of 170 pages. The exposition has been made about as readable as the subject permits, while for the benefit of the more serious student exercises have been liberally provided."

The Mathematical Gazette

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