

TABLE OF CONTENTS

VORWORT

K. AMBOS-SPIES *	1
Contiguous R.E. Degrees	
H.-G. CARSTENS, P. PÄPPINGHAUS *	39
Abstract Construction of Counterexamples in Recursive Graph Theory	
C.T. CHONG, C.G. JOCKUSCH	63
Minimal Degrees and 1-generic Sets below 0'	
J.N. CROSSLEY, J.B. REMMEL *	79
Undecidability and Recursive Equivalence II	
L. DENENBERG, H.R. LEWIS	101
Logical Syntax and Computational Complexity	
E.C. DENNIS-JONES, S.S. WAINER	117
Subrecursive Hierarchies via Direct Limits	
E.J. FARKAS, M.E. SZABO *	129
A Star-Finite Relational Semantics for Parallel Programs	
S. FEFERMAN	143
Between Constructive and Classical Mathematics	
G. GERMANO, S. MAZZANTI *	163
Partial Closures and Semantics of While: Towards an Iteration-Based Theory of Data Types	
Y. GUREVICH	175
Toward Logic Tailored for Computational Complexity	
P. HAJEK	217
On a New Notion of Partial Conservativity	
P.G. HINMAN	233
Finitely Approximable Sets	
Ch. KREITZ, K. WEIHRAUCH*	259
A Unified Approach to Constructive and Recursive Analysis	
P. LINDSTRÖM*	279
On Faithful Interpretability	
Y.N. MOSCHOVAKIS	289
Abstract Recursion as a Foundation for the Theory of Algorithms	
D. RÜDDING †	363
Some Logical Problems Connected with a Modular Decomposition Theory of Automata	

U.R. SCHMERL *	389
Diophantine Equations in a Fragment of Number Theory	
P. SCHROEDER-HEISTER *	399
Generalized Rules for Quantifiers and the Completeness of the Intuitionistic Operators $\&$, \vee , \supset , \wedge , \forall , \exists	
P.H. SLESSENGER *	427
On Subsets of the Skolem Class of Exponential Polynomials	
D. SPREEN, P. YOUNG *	437
Effective Operators in a Topological Setting	
T. UESU *	453
An Axiomatization of the Apartness Fragment of the Theory DLO [†] of Dense Linear Order	

† Professor Dr. D. Rödding died on June 4, 1984

* An asterisk indicates a contributed paper.

CONTENTS - PART I

(published in LNM vol. 1103)

VORWORT	III
J. Baeten Filters and Ultrafilters over Definable Subsets of Admissible Ordinals	1
B. Benninghofen Superinfinitesimals and the Calculus of the Generalized Riemann Integral	9
A.J. Berner, I. Juhasz Point-Picking Games and HFD's	53
R. Bonnet On Homomorphism Types of Superatomic Interval Boolean Algebras	67
G.L. Cherlin* Decidable Theories of Pseudo-Algebraically Closed Fields	83
G.L. Cherlin* Definability in Power Series Rings of Nonzero Characteristics	102
G.L. Cherlin, H. Volger Convexity Properties and Algebraic Closure Operators	113
J. Czelakowski Remarks on Finitely Based Logics	147
J.M. Font Monadicity in Topological Pseudo-Boolean Algebras	169
W. Hodges* Finite Extensions of Finite Groups	193
G.F. van der Hoeven, I. Moerdijk* Constructing Choice Sequences from Lawless Sequences of Neighbourhood Functions	207
E. Kranakis, I. Phillips Partitions and Homogeneous Sets for Admissible Ordinals	235
W. Lenski Elimination of Quantifiers for the Theory of Archimedean Ordered Divisible Groups in a Logic with Ramsey Quantifiers	261
S.C. Liu A Proof-Theoretic Approach to Non Standard Analysis (Continued)	281
K.L. Manders Interpretations and the Model Theory of the Classical Geometries	297
A. Marcja, C. Toffalori On Cantor-Bendixson Spectra Containing $(1,1) - 1^{(\circ)}$	331

D. Mundici	351
Abstract Model-Theory and Nets of C^* -Algebras: Noncommutative Interpolation and Preservation Properties	
R. Murawski	379
A Contribution to Nonstandard Teratology	
P.H. Schmitt	389
Model- and Substructure Complete Theories of Ordered Abelian Groups	
V. Weispfenning*	419
Quantifier Elimination and Decision Procedures for Valued Fields	
Ph. Welch ₁	473
On Σ_2^1	