THE

JOURNAL OF SYMBOLIC LOGIC

EDITED BY

JON BARWISE

STEPHEN A. COOK

MICHAEL DUNN

HERBERT B. ENDERTON

KIT FINE

WILLIAM A. HOWARD

WILFRID HODGES

AKIHIRO KANAMORI

ALEXANDER KECHRIS

ANGUS MACINTYRE

MICHAEL MAKKAI

RICHARD A. SHORE

A. S. TROELSTRA

BAS VAN FRAASSEN

Consulting Editors:

PETER ACZEL
JAMES BAUMGARTNER
JIŘÍ BEČVÁŘ
GEORGE BOOLOS
JOAN BRESNAN
JOHN P. BURGESS
GREGORY L. CHERLIN

M. J. CRESSWELL FREDERIC B. FITCH SY D. FRIEDMAN HANS KAMP SAUL A. KRIPKE MENACHEM MAGIDOR GREGORY MINC J. Donald Monk Charles D. Parsons Gabriel Sabbagh Dana S. Scott Steven K. Thomason Alasdair Urquhart Johan van Benthem

Volume 50 · Number 2 · June 1985 ISSN 0022-4812

PUBLISHED QUARTERLY BY THE ASSOCIATION FOR SYMBOLIC LOGIC, INC. WITH SUPPORT FROM ICSU AND FROM INSTITUTIONAL AND CORPORATE MEMBERS

Copyright © 1985 by the Association for Symbolic Logic, Inc.

Reproduction by photostat, photo-print, microfilm, or like process by permission only

TABLE OF CONTENTS

Global quantification in Zermelo-Fraenkel set theory. By JOHN MAYBERRY	289
On the structure of $Ext(A, \mathbf{Z})$ in ZFC^+ . By G. SAGEEV and S. SHELAH	302
Quelques précisions sur la D.O.P. et la profondeur d'une théorie. By D. LASCAR	316
Functors and ordinal notations. IV: The Howard ordinal and the functor A. By	
JACQUELINE VAUZEILLES	331
A direct proof of the finite developments theorem. By ROEL DE VRIJER	339
Replacement and connection in intuitonistic set theory. By NICOLAS D.	
GOODMAN	344
Effective discontinuity and a characterisation of the superjump. By JOHN P.	
HARTLEY	349
Isomorphisms between HEO and HRO ^E , ECF and ICF ^E . By MARC BEZEM	359
A note on interpretations of many-sorted theories. By Julian L. Hook	372
Disturbing arithmetic. By THOMAS J. GRILLIOT	375
The ordered field of real numbers and logics with Malitz quantifiers. By ANDREAS	
RAPP	380
Propositional logic based on the dynamics of belief. By Peter Gärdenfors	390
A new proof for Craig's theorem. By P. Bellot	395
Universal recursion theoretic properties of r.e. preordered structures. By Franco	
MONTAGNA and Andrea Sorbi	397
The consistency of some 4-stratified subsystem of NF including NF ₃ . By MAURICE	
Boffa and Paolo Casalegno	407
On the role of the Baire Category Theorem and Dependent Choice in the foun-	
dations of logic. By ROBERT GOLDBLATT	412
Cuts, consistency statements and interpretations. By PAVEL PUDLÁK	423
Axiomatic recursion theory and the continuous functionals. By Simon Thompson	442
The metatheory of the classical propositional calculus is not axiomatizable. By	
IAN MASON	451
Subgroups of a free group and the axiom of choice. By PAUL E. HOWARD	458
Decidable regularly closed fields of algebraic numbers. By Lou van den Dries	
and RICK L. SMITH	468
Weakly compact cardinals in models of set theory. By ALI ENAYAT	476
3088 varieties: A solution to the Ackermann constant problem. By John K.	
Slaney	487
The consistency of the axiom of universality for the ordering of cardinalities. By	700
MARCO FORTI and FURIO HONSELL	502
On the logic of theory change: Partial meet contraction and revision functions.	
By Carlos Alchourrón, Peter Gärdenfors and David Makinson	510
An AD-like model. By Arthur W. Apter	531
Reviews	544
Notices	567

THE JOURNAL OF SYMBOLIC LOGIC is published quarterly, in the months of March, June, September, and December, by the Association for Symbolic Logic, Inc., at 1981 East Locust Street, Pasadena, CA 91107. Second class postage is paid at Pasadena, CA and additional offices. The annual subscription price is \$65.00. Postmaster: Send address changes to The Journal of Symbolic Logic, Association for Symbolic Logic, P.O. Box 70557, Pasadena, CA 91107.

The JOURNAL is the official organ of the Association for Symbolic Logic, an international organization for furthering research in symbolic logic and exchange of ideas among mathematicians, philosophers, and others interested in this field.

Continued on inside back cover