THE

JOURNAL OF SYMBOLIC LOGIC

EDITED BY

WILLIAM CRAIG

KIT FINE

YIANNIS MOSCHOVAKIS

HERBERT ENDERTON

DAGFINN FØLLESDAL

ANIL NERODE

WILFRID HODGES

Managing Editor: ALFONS BORGERS

Consulting Editors:

PETER ACZEL
JIŘÍ BEČVÁŘ
JOAN BRESNAN
M. J. CRESSWELL
MARTIN D. DAVIS
SOLOMON FEFERMAN
FREDERIC B. FITCH

DAVID KAPLAN
SAUL A. KRIPKE
MICHAEL MAKKAI
RUTH BARCAN MARCUS
DONALD A. MARTIN
J. DONALD MONK
GERT H. MÜLLER
CHARLES D. PARSONS

GABRIEL SABBAGH
GERALD SACKS
ARTO SALOMAA
DANA S. SCOTT
JOSEPH R. SHOENFIELD
RICHARD A. SHORE
BAS VAN FRAASSEN

Volume 46 · Number 2 · June 1981 ISSN 0022-4812

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

Copyright © 1981 by the Association for Symbolic Logic, Inc.
Reproduction by photostat, photo-print, microfilm, or like process by permission only

TABLE OF CONTENTS

Countable functionals and the projective hierarchy. By DAG NORMANN	209
A lift of a theorem of Friedberg: A Banach-Mazur functional that coincides with	
no α -recursive functional on the class of α -recursive functions. By	
ROBERT A. DI PAOLA	216
An axiomatic version of positive semilattice relevance logic. By G. CHARLWOOD	233
Implicational complexity in intuitionistic arithmetic. By Daniel Leivant	240
Measurability and degrees of strong compactness. By ARTHUR W. APTER	249
Complexity bounds on proofs. By WILLIAM S. HATCHER and BERNARD R.	
Hodgson	255
Recursively saturated nonstandard models of arithmetic. By C. Smoryński	259
Patterns of projecta. By ADAM KRAWCZYK	287
On a condition for Cohen extensions which preserve precipitous ideals. By	
Yuzuru Kakuda	296
An example concerning Scott heights. By M. MAKKAI	301
The decidability of normal K5 logics. By MICHAEL C. NAGLE	319
Calculating self-referential statements: Guaspari sentences of the first kind. By	
C. Smoryński	329
Canonization theorems and applications. By Saharon Shelah	345
On the Gödel class with identity. By WARREN D. GOLDFARB	354
Nonstandard natural number systems and nonstandard models. By Shizuo	
Камо	365
Algebraic independence. By Julia F. Knight	377
Effective Galois theory. By Peter La Roche	385
A new inner model for ZFC. By WLODZIMIERZ ZADROZNY	393
Vaught's theorem recursively revisited. By TERRENCE MILLAR	397
Reviews	412
Meeting of the Association for Symbolic Logic, Melbourne, Australia, 1979. By	
JOHN N. CROSSLEY and LLOYD HUMBERSTONE	424
Abstracts of papers.	424
Meeting of the Association for Symbolic Logic, New York, 1979. By GEORGE	
BOOLOS, SY FRIEDMAN and HAROLD HODES	427
Abstracts of papers	427
European Summer Meeting of the Association for Symbolic Logic, Leeds, Eng-	
land, 1979. By F. R. DRAKE and S. S. WAINER	435
Abstracts of papers	435
Notices	447

THE JOURNAL OF SYMBOLIC LOGIC is published quarterly, in the months of March, June, September, and December. The JOURNAL is the official organ of the Association for Symbolic Logic, Inc., 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

Second-class postage rates paid at Providence, RI, and additional offices