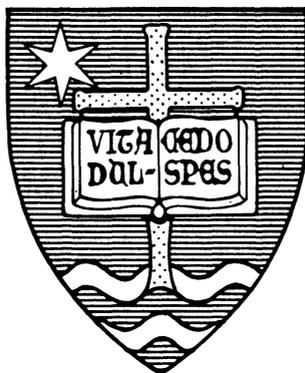


NOTRE DAME JOURNAL  
OF  
FORMAL LOGIC

VOLUME XVIII, NUMBER 3

JULY 1977



PUBLISHED QUARTERLY BY THE  
UNIVERSITY OF NOTRE DAME, NOTRE DAME, INDIANA

# NOTRE DAME JOURNAL OF FORMAL LOGIC

Bolesław Sobociński, *Editor*

*Business Manager*

Michele Daugherty

*Editorial Board*

Ignacio Angelelli	Robert Bull	Marian B. Pour-El
F. Gonzalez Asenjo	John Thomas Canty	Jean E. Rubin
Nuel D. Belnap, Jr.	George Goe	Luis Elpidio Sanchis
Ivan Boh	Hugues Leblanc	Wilson E. Singletary
William W. Boone	Gerald Massey	Vito F. Sinisi
Karel L. de Bouvère	Elliott Mendelson	J. Jay Zeman

Volume XVIII, Number 3, July 1977

## CONTENTS

Two systems of presupposition logic. By <i>I. L. Humberstone</i> and <i>J. M. Bell</i> . . . . .	321
A refoundation of modal logic. By <i>Graham Priest</i> . . . . .	340
A note on metaphysics and the foundations of mathematics. By <i>Robert L. Wilson</i> . . . . .	355
A reassessment of George Boole's theory of logic. By <i>James W. Van Evra</i> . . . . .	363
An axiomatization of Herzberger's 2-dimensional presuppositional semantics. By <i>John N. Martin</i> . . . . .	378
Recursive and recursively enumerable manifolds. II. By <i>Vladeta Vučković</i> . . . . .	383
When do *continuous extensions exist? By <i>Robert Warren Bulton</i> . . . . .	406
A note on the axiom of choice and the continuum hypothesis. By <i>Rolf Schock</i> . . . . .	409
The entailment operator. By <i>Peter A. Facione</i> . . . . .	415
Semantique des formules logiques en forme d'équivalence $n$ -aire (demi-modèles). By <i>Metoděj K. Chytil</i> . . . . .	421
The weak topology on logical calculi. By <i>Arnold R. Vobach</i> . . . . .	436
The logic of closed categories. By <i>Manfred E. Szabo</i> . . . . .	441
Hintikka's free logic is not free. By <i>Henri J. Sarlet</i> . . . . .	458
The "conditionatim"-clause: one of the problems of existential import in the history of logic. By <i>Ivan Boh</i> . . . . .	459
Some Post-complete extensions of S2 and S3. By <i>Robert V. Kohn</i> . . . . .	467
A remark on Gentzen's calculus of sequents. By <i>Johannes Czermak</i> . . . . .	471
The numeral axioms. By <i>Richard Butrick</i> . . . . .	475
Additional extensions of S4. By <i>G. N. Georgacarakos</i> . . . . .	477
Some applications of model theory to the metatheory of program schemata. By <i>Richard A. DeMillo</i> . . . . .	489
Frequencies and beliefs. By <i>Charles G. Werner</i> . . . . .	496
The continuum hypothesis is independent of second-order ZF. By <i>Thomas S. Weston</i> . . . . .	499
Semantics for S4.03. By <i>G. N. Georgacarakos</i> . . . . .	504
On G. Spencer Brown's laws of form. By <i>B. Banaschewski</i> . . . . .	507
A deduction rule for $\text{VBT0}(\ )_{i=1}^n$ . By <i>Richard Butrick</i> . . . . .	510

*Notre Dame Journal of Formal Logic* is published quarterly by the University of Notre Dame in January, April, July and October of each year. The Journal is composed by Beljan, Dexter, Michigan and printed by Cushing-Malloy, Inc., Ann Arbor, Michigan. Second-class postage paid at Notre Dame, Indiana 46556.

Authors should consult the "Guide to authors" for editorial information. Articles and editorial correspondence should be sent to *B. Sobociński, Editor*, P.O. Box 28, Notre Dame, Indiana 46556, U.S.A.

Subscriptions are \$20.00 per year for institutions and \$15.00 for individuals. Back volumes are \$10.00 each for Volumes 1-9, \$16.00 for Volumes 10-16. Orders for subscriptions and back volumes (accompanied by payment), and changes of address should be sent to the *Business Manager*, P. O. Box 5, Notre Dame, Indiana 46556, U.S.A.

Copyright ©1977 by the University of Notre Dame. All rights reserved.