Notre Dame JOURNAL of FORMAL LOGIC



VOLUME 33, NUMBER 3 SUMMER 1992

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

NOTRE DAME JOURNAL OF FORMAL LOGIC

EDITORS:

BUSINESS MANAGER:

Michael Detlefsen Anand Pillay Jan Houseman

Copy Editor:

Michael Byron

VOLUME 33, NUMBER 3, SUMMER 1992 CONTENTS

A diophantine definition of rational integers over some rings of algebraic numbers. By Alexandra Shlapentokh 29	99
Generic models of the theory of normal Z-rings. By Margarita Otero 32	22
The categoricity spectrum of pseudo-elementary classes. By Michael Chris Laskowski	32
A variable-free logic for mass terms. By William C. Purdy 34	48
Cut-free systems for three-valued modal logics. By Mitio Takano 35	59
A sequent- or tableau-style system for Lewis's counterfactual logic VC. By Ian Philip Gent	69
Relative separation theorems for $\mathcal{L}_{\kappa+\kappa}$. By <i>Heikki Tuuri</i>	83
On a quasi-set theory. By Décio Krause	02
A certain conception of the calculus of rough sets. By Zbigniew Bonikowski	12
A note on naive set theory in LP. By Greg Restall	22
Constructive ultraproducts and isomorphisms of recursively saturated ultrapowers. By G. C. Nelson	33
Real reduced models for relevant logics without WI. By Steve Giambrone 44	42
Unifying some modifications of the Henkin construction. By George Weaver 45	50
Book review: Richard Kaye. Models of Peano Arithmetic. Reviewed by Laurence Kirby	61

Notre Dame Journal of Formal Logic is published quarterly by the University of Notre Dame in the Winter, Spring, Summer, and Fall of each year. The Journal is composed by Beljan, Ltd., Dexter, Michigan and printed by Cushing-Malloy, Inc., Ann Arbor, Michigan. Second-class postage paid at Notre Dame, Indiana 46556.

Subscriptions are \$45.00 per year for institutions and \$25.00 for individuals. Back volumes are \$20.00 each for Volumes 1-10, \$40.00 each for Volumes 11-30, and \$45.00 for Volumes 31 and 32. 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 © 1992 by the University of Notre Dame. All rights reserved. Coden: NDJFAM.

Notre Dame Journal of Formal Logic (ISSN 0029-4527)