International Journal for the History of Mathematical Logic, Set Theory, and Foundations of Mathematics

Vol. 6, no. 1

(January 1996)

Mathematical logic . . . is the modern form of logic developed in the last hundred years. – Rudolf Carnap (1954)

Modern Logic Publishing, Ames, Iowa, USA

ISSN 1047-5982

## International Journal of the History of Mathematical Logic, Set Theory, and Foundations of Mathematics

#### EDITORIAL BOARD

EDITOR: Irving H. ANELLIS (Modern Logic Publishing, 2408<sup>1</sup>/<sub>2</sub> W. Lincoln Way (Upper Level), Ames, IA 50014-7217, USA; email: f1.mlp@ISUMVS.IASTATE.EDU (preferred); ModernLog@aol.com; America Online: ModernLog) (English, Russian / General Logic and Foundations, Proof Theory, 20.-cent., Logic in the USSR; 03Bxx, 03Fxx)

CO-EDITOR: Thomas L. DRUCKER (Modern Logic Publishing, 304 South Hanover Street, Carlisle, PA 17013-3938, USA; fax: 717-258-0515) (English, French / Categorical Logic, Model Theory and Nonstandard Models; 03G30, 18B25, 03Cxx, 03Hxx)

#### ASSOCIATE EDITORS:

Francine F. ABELES (Department of Mathematics and Computer Science, Kean College SCNJ, Union, N.J. 07083, USA; email: fabeles@luau.kean.edu) (Reviews Editor)

Alexei G. BARABASHEV (Department of Philosophy and Methodology of Science, Room 451, Humanities Bldg. No. 1, Center for Social Sciences and Humanitarian Studies, Moscow University, Moscow, 119899 Russia; email: alexei@bar.srcc.msu.su; fax: 7 (095) 939-5338) (Russian, English / Sociology, Pedagogy, Methodology and Philosophy of Logic, Philosophy of History of Foundations of Mathematics, Future Prospectives; 00A25, 01A67, 01A80, 03A05, 98-03)

Valentine A. BAZHANOV (Department of Philosophy, Ulyanovsk Branch of Moscow University, P.O. Box 1602, Ulyanovsk 63, 432063, Russia; email: bazhan@bazh.univ.simbirsk.su; WWW page url: http://www.bmsu.simbirsk/research/research.human. html) (Russian, English / Paraconsistent Logics, Modal Logics, Multiple-valued Logics, 19.–20. century Logic in Russia & USSR; 03B45, 03B50)

Leon HARKLEROAD (1111 Hector Street, Ithaca, N.Y. 14850, USA; email: leon@ math.cornell.edu) (English, French, German, Hungarian / Recursion Theory, Fuzzy Sets; 03Dxx, 03E72, 04A72)

Sangmun KIM (Department of Mathematics, Yonsei University, Seoul, 120-749, South Korea; email: sangmunkim@bubble.yonsei.ac.kr) (English, German / Logic and History of Logic in Asia; 01A25, 01A27, 01A29)

Roman MURAWSKI (Instytut Matematyki, UAM, ul. Matejki 48/49, PL-60-769 Poznań, Poland; email: rmur@math.amu.edu.pl) (Polish, Russian, German, English, French / 19.–20. century Logic in Poland, Hilbert's Program, Metamathematics, and Theories of Arithmetic, Firstand Second-order Arithmetic and Fragments, Nonstandard Models of Peano Arithmetic; 03C62, 03F30, 03F35, 03H15)

Volker PECKHAUS (Institut für Philosophie der Universität Erlangen-Nürnberg, Bismarckstraße 1, D-91054 Erlangen, Germany; email: vrpeckha@phil.uni-erlangen.de; URL: http: //www.phil.uni-erlangen.de/~p1phil/lstii.html) (German, English / Algebraic Logic; 03Gxx)

Wim RUITENBURG (Department of Mathematics, Statistics & Computer Science, Marquette University, P.O. Box 1881, Milwaukee, WI 53201-1881, USA; email: wimr@mscs.mu.edu) (English, Dutch, German, French / Constructive Logic and Mathematics, Intuitionism, Topos Theory, Constructive Algebra; 03F50, 03F55, 03F65; 03G30)

John C. SIMMS (Department of Mathematics, Statistics & Computer Science, Marquette University, P.O. Box 1881, Milwaukee, WI 53201-1881, USA; email: johns@mscs.mu.edu) (English, German, French / Set Theory; 03Exx, 04-xx)

ADVISORY BOARD: Evandro AGAZZI, ex officio (Genoa), Boris V. BIRYUKOV (Moscow), Alejandro R. GARCIADIEGO (Mexico City), Nathan HOUSER (Indianaopolis), Christian THIEL (Erlangen)

International Journal for the History of Mathematical Logic, Set Theory, and Foundations of Mathematics

Revue International d'Histoire de Logique Mathématique, Théorie des Ensembles et des Fondements des Mathématiques

Internationale Zeitschrift für Geschichte der mathematischen Logik, Mengenlehre und Grundlagen der Mathematik

Международный Журнал по Истории Математической Логики, Теории Множеств и Оснований Математики

Rivista Internazionale di Storia della Logica Matematica, Teoria degli Insiemi e Fondamenti di Matematica

Revista internacional de história de la lógica matemática, teoría de conjuntos y fundamentos de las matemáticas

Volume 6, no. 1 (January 1996)

# Modern Logic Publishing (SAN 298-1777)

Irving H. Anellis, Publisher; Henry Kormin, Executive Administrator 2408<sup>1</sup>/<sub>2</sub> W. Lincoln Way (Upper Level) Ames, Iowa 50014 -7217, USA tel.: 515 / 292-1819 email: F1.MLP@ISUMVS.IASTATE.EDU (preferred); ModernLog@aol.com

Printed by Sigler Printing & Publishing 413 Northwestern Avenue, Ames, IA 50010–0887, USA Typesetting by the Department of Mathematics, Statistics and Computer Science of Marquette University

International Journal of the History of Mathematical Logic, Set Theory, and Foundations of Mathematics

Subscriptions. Requests for information concerning subscriptions should be sent to: Order & Subscription Department, Modern Logic Publishing,  $2408^{1/2}$  W. Lincoln Way (Upper Level), Ames, IA 50014–7217, USA. Individuals residing in the countries which do not have convertible currency may inquire about Barter Exchange Subscriptions. Institutional subscribers may contact their journals subscription service. Subscriptions: Individuals – US\$40 per volume (add US\$20 per volume for air mail delivery outside the United States); Libraries/ institutions: US\$110 per volume.

Published by Modern Logic Publishing, Dr. Irving H. Anellis, Editor & Publisher; Henry Kormin, Executive Administrator: 2408<sup>1</sup>/<sub>2</sub> W. Lincoln Way (Upper Level), Ames, IA 50014–7217, USA. WWW URL page: http://www.ed.ac.uk/~pmilne/ml/home.html.

# © Modern Logic Publishing, 1996

No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system without the express permission in writing of the publisher. *Modern Logic* is registered with the Copyright Clearance Center (CCC), 222 Rosewood Drive, Danvers, Massachusetts 01923, USA. The publisher hereby authorizes registered users of the CCC to duplicate materials contained in *Modern Logic* by paying copy fees directly to the CCC.

> vol. 6, no. 1 (January 1996)

## **MLP BOOKS**

### Forthcoming,

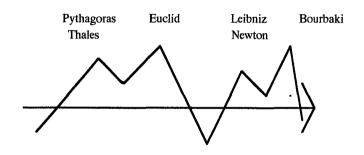
### Winter 1995/96

### ALEXEI G. BARABASHEV, Long Cycles in the History of Mathematics (English translation by Gregory D. Crowe)

Volume 1: Russian Philosophy and History of Logic, Mathematics and Science Series; ISBN 1-884905-02-1 ; paperback; tentative price: \$24.95

A much enlarged and revised translation of the author's book *Dialektika* razvitiya matematicheskogo znaniya. Gregory Crowe's translation will give readers an appreciation for the acuity and depth of the author's perception, the philosophical profundity of his analyses, and his broad knowledge of the history of mathematics. In the process of developing his thesis, Barabashev has arrived at philosophical insights and conclusions which will contribute significantly to discussions on the philosophy of the history of mathematics. Some of these insights will be absolutely new to philosophers of mathematics, especially those who are unable to avail themselves of the author's writings in Russian. Other of these insights will appear vaguely familiar to readers; but they will discover that this familiarity derives from a close similarity between the conclusions reached by Barabashev and those recently reached independently, but only after Barabashev had already done so, by Western writers in philosophy of mathematics who have only recently begun to approach their subject historically.

Gregory Crowe is prepearing to defend his doctoral thesis at Harvard University. The thesis is on twentieth-century Soviet technology. Mr. Crowe has also published a number of papers on Lobachevskii and worked in close cooperation with the author to produce this translation.



Contents of

# **MODERN LOGIC**

International Journal for the History of Mathematical Logic, Set Theory, and Foundations of Mathematics

> Vol. 6, no. 1 (January 1996)

A. A. MARKOV, A. S. KUZICHEV, and Z. A. KUZICHEVA, Sof'ya Aleksandrovna Yanovskaya's work in the field of mathematical logic Irving H. ANELLIS, Sof'ya Aleksandrovna Yanovskaya's contributions to logic and history of logic Roman MURAWSKI, Contributions of Polish logicians to decidability theory Boris A. KUSHNER, Sof'ja Aleksandrovna Janovskaja: A few reminiscences Boris ROSENFELD, Reminiscences of S. A. Yanovskaya Irving H. ANELLIS, Yanovskaya's 'ghost'

Reviews by Irving H. ANELLIS, María J. FRÁPOLLI, Wim RUITENBURG, and Jonathan WEINBERGER



Modern Logic Publishing, Ames, Iowa, USA

