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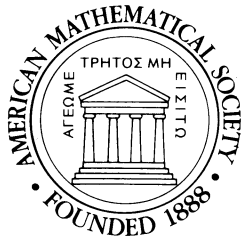
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REVIEWS IN RING THEORY

Compiled and Edited by Lance W. Small

Department of Mathematics, University of California, San Diego

These volumes collect 5,396 reviews from *Mathematical Reviews* of papers in noncommutative ring theory. All reviews of papers in ring theory from Volume 21 (1960) through Volume 58 (1979) appear here. Additionally, the editor has collected those papers from Volume 1 through Volume 20 which are necessary background. Papers on group rings, homological questions, and enveloping algebras with ring theoretic interest are also included.

Each review has an "appearance number" specifying the location of the review by chapter, section and number within the section. By and large, reviews within one section are arranged in "rough" chronological order (i.e., by appearance in *Mathematical Reviews*). The principal exceptions are papers in a series and very closely related papers. If a cited review occurs in these volumes, then its appearance number is listed after the review in which it is cited.

Cross-references are given at the beginning of some sections and chapters to inform the reader of closely related reviews appearing elsewhere. These cross-references may also be useful to the reader as a guide to finding reviews which do not appear where the reader thinks they should.

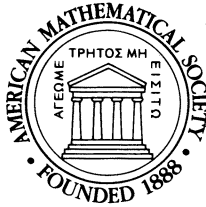
These volumes are a research tool. There are no other books containing the information herein except *Mathematical Reviews* itself.

The editor's previous work includes over 40 papers in ring theory. He has been a reviewer for *Mathematical Reviews* since 1968.

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Automated Theorem Proving: After 25 Years

W. W. Bledsoe and D. W. Loveland, Editors

This volume contains papers based on a special session for automated theorem proving held at the annual meeting of the American Mathematical Society in Denver, January, 1983. At the meeting special awards were given to honor historically significant work (the *Milestone Prize*: Hao Wang, awardee) and to honor excellent current work (the *Current Research prize*: Lawrence Wos and Steven Winker, awardees). Roughly a dozen leading contributors to the field were invited to present papers; papers characterizing their research work or a broader perspective were encouraged. Papers range from a historical overview of twenty-five years of research in the automated theorem proving field to significant technical papers, including a reprint of a *Scientia Sinica* paper giving a new and elegant decision procedure for a portion of elementary geometry.

Most of the major efforts in building automated theorem provers (or theorem proving assistants) are covered by papers in this volume, a notable but less familiar example (to the ATP community) being the Suppes interactive theorem prover for teaching logic and axiomatic set theory. The well-known provers of Andrews, Bledsoe, Boyer and Moore, and Wos, et al. are represented as are term rewriting, combining decision procedures and automating mathematical discovery. The book is intended for every mathematician and computer scientist interested in the state-of-the-art in automated theorem proving, but in particular, it is intended to encourage active research mathematicians to contribute their insight to this field.

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M. D. SPIVAK, Ph.D.

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