Mathematical Reviews Sections

ENJOY THE CONVENIENCE OF HAVING MATHEMATICAL REVIEWS AT YOUR DESK. HAVE YOU THOUGHT HOW REALLY HANDY IT WOULD BE TO HAVE THE SECTIONS RELEVANT TO YOUR RESEARCH RIGHT BEFORE YOU?

MR has been divided into 37 affordable Sets for individual subscribers. Each month you can receive the Section Sets you have chosen with an author index. With your December Sets you will receive an annual author and subject index (as with MR). Also available for Section subscribers are three-ring binders of sturdy quality in the familiar tangerine color of MR to hold your subscription. The binders have a two inch spine and are adequate to hold 400 pages.

Section Sets are divided into Class 1 and Class 2 according to the estimated number of pages per year.

Set	Sections	Subjects		🗆 2I	42, 43, 44, 45	Harmonic analysis, integral
🗆 1A	00, 01	General, histo	ory, biography			transforms/equations (Class 2)
	, , , , , , , , , , , , , , , , , , , ,	(Class 1)	,		46	Functional analysis (Class 1)
🗆 1B	03, 04	Logic, found	ations, set theory	□ 1K	47	Operator theory (Class 1)
		(Class 1)		🗆 2J	49	Calculus of variations, optimiz-
🗆 1C	05	Combinatorio	s (Class 1)			ation (Class 2)
🗆 2A	06, 08	Order, lattice	s, general systems		51, 52	Geometry, convex sets (Class 2)
		(Class 2)			53	Differential geometry (Class 1)
🗆 1D	10	Number theo	ry (Class 1)		54	General topology (Class 2)
□ 2B	12	Algebraic nu	nber theory, field	— 114	55, 57	See IE (18, 55, 57)
		theory, po	lynomials (Class 2)		58	Global analysis, analysis on
$\Box 2C$	13, 14	Commutative	rings and algebras,		60	manifolds (Class I)
	1.5	algebraic g	eometry (Class 2)		60	tic processes (Class 1)
	15	Linear and m	ory (Class 2)	□ 1P	62	Statistics (Class 1)
□ 2F	16 17	Associativo/n	onassociative	\square 10	65	Numerical analysis (Class 1)
	10, 17	rings algeb	vras (Class 2)		68	Computer science (including
□ 1F	18 55 57	Category the	nrv algebraic	-	00	automata) (Class 1)
· · ·	10, 55, 57	topology.	manifolds (Class 1)	□ 2M	70, 73	Mechanics of particles, systems,
🗆 1F	20	Group theory	, generalizations		,	(Class 2)
		(Class 1)	, 0	🗆 2N	76, 78, 80	Fluid mechanics, optics, elec-
🗆 2F	22	Topological g (Class 2)	roups, Lie groups			tromagnetics, thermodynam- ics (Class 2)
🗆 2G	26, 28	Real function	ns, measure, inte-	🗆 1S	81	Quantum mechanics (Class 1)
		gration (C	ass 2)	🗆 2P	82, 83, 85, 86	Other physics, astronomy, astro-
🗆 1G	30, 31, 32, 33	Complex ana	lysis, potential			physics, geophysics (Class 2)
		theory, sp	ecial functions	🗆 1T	90	Economics, operations re-
- 111	24	(Class I)				search, programming, games
	34	Ordinary diff	erential equations		00	(Class 1)
	35	Partial differ	ential equations	⊔ 2Q	92	Biology and behavioral sci-
	55	(Class 1)	cintial equations		03	Systems theory: control (Class 1)
□ 2H	39, 40, 41	Finite differe	nces, sequences,		94	Information and communica.
		approxima	tions (Class 2)	–		tion, circuits (Class 1)
		First Set		Each Add'l Set		Optional Binder
		Class 1	Class 2	Class	1 Class 2	\$5.00 each
Individual		\$42	\$30	\$36	\$24	
Reviewer		28	20	24	16	(1984 Subscription prices)
				- •		
USE THIS	THIS PAGE OR A PHOTOCOPY TO ORDER.				Date -	

\$ _____ enclosed for subscriptions selected and marked above.

□ \$5.00 enclosed for 2" tangerine binder stamped MATHEMATICAL REVIEWS SECTIONS on spine and front cover. (It is not required that one buy a binder.)

\$ _____ Total prepaid order. (New subscribers may charge to Visa or MasterCard)

Name ______Your AMS code ______ Address _____

> AMERICAN MATHEMATICAL SOCIETY P.O. Box 1571, Annex Station, Providence, Rhode Island 02901

(Continued from back cover)

H. C. Williams and G. W. Dueck, An Analogue of the Nearest Integer Con-					
tinued Fraction for Certain Cubic Irrationalities	683				
H. J. Godwin, On Quartic Fields of Signature One With Small Discrimi-					
nant. II	707				
Reviews and Descriptions of Tables and Books					
Ciarlet 5, van de Lune, te Riele and Winter 6					
Author Index	715				

No microfiche supplement in this issue

MATHEMATICS OF COMPUTATION TABLE OF CONTENTS

April 1984

Kenneth Eriksson and Vidar Thomée, Galerkin Methods for Singular Boundary Value Problems in One Space Dimension	345
David L. Brown, A Note on the Numerical Solution of the Wave Equation With Piecewise Smooth Coefficients	369
Tunc Geveci, On the Convergence of Galerkin Approximation Schemes for Second-Order Hyperbolic Equations in Energy and Negative Norms	393
Mitsuhiro Nakao, A Collocation- H^{-1} -Galerkin Method for Some Elliptic Equations	417
Eugene C. Gartland, Jr., Accurate Approximation of Eigenvalues and Zeros of Selected Eigenfunctions of Regular Sturm-Liouville Problems	427
Ewa Weinmüller , A Difference Method for a Singular Boundary Value Problem of Second Order	441
Alan E. Berger, Houde Han and R. Bruce Kellogg, A Priori Estimates and Analysis of a Numerical Method for a Turning Point Problem	465
Zhong-ci Shi, On the Convergence Properties of the Quadrilateral Elements of Sander and Beckers	493
Dietrich Braess, The Convergence Rate of a Multigrid Method with Gauss- Seidel Relaxation for the Poisson Equation	505
Trond Steihaug, On the Sparse and Symmetric Least-Change Secant Update	521
Tony F. Chan, On the Existence and Computation of <i>LU</i> -Factorizations with Small Pivots	535
Garry Rodrigue and Donald Wolitzer, Preconditioning By Incomplete Block Cyclic Reduction	549
Youcef Saad, Chebyshev Acceleration Techniques for Solving Nonsymmetric Eigenvalue Problems	567
Luciano Misici, Numerical Solution of Two Transcendental Equations	589
Andrea Laforgia, Further Inequalities for the Gamma Function	597
Arne Fransén and Staffan Wrigge, Calculation of the Moments and the Moment Generating Function for the Reciprocal Gamma Distribution	601
Staffan Wrigge, A Note on the Moment Generating Function for the Reciprocal Gamma Distribution	617
Richard Mansfield, A Complete Axiomatization of Computer Arithmetic	623
Joachim von zur Gathen, Hensel and Newton Methods in Valuation Rings	637
C. J. Smyth, The Mean Values of Totally Real Algebraic Integers	663

(Continued on inside back cover)