

Recent Progress in Inequalities. Edited by G. V. Milovanović. Kluwer Academic Publishers, Dordrecht. (1998). 519 pages. \$225.00, NLG 395.00, GBP 135.00.

Contents:

Preface. Life and inequalities: D.S. Mitrinović (1908–1995) (G.V. Milovanović). Publications of D.S. Mitrinović (R.Ž. Djordjević and R.R. Janić). Invited papers. Complex polynomials and maximal ranges: Background and applications (V.V. Andrievskii and S. Ruscheweyh). Exact classical polynomial inequalities in H_p for $0 \leq p \leq \infty$ (V.V. Arestov). Vietoris's inequalities and hypergeometric series (R. Askey). Inequalities for norms of intermediate derivatives and some their applications (V.F. Babenko). Table of inequalities in elliptic boundary value problems (C. Bandle and M. Flucher). A catalogue of help and help-type integral and series inequalities (M. Benammar, C. Bennowitz, M.J. Beynon, B.M. Brown, N.G.J. Dias, W.D. Evans, W.N. Everitt, V.G. Kirby and L.L. Littlejohn). Remarks of the Jackson and Whitney constants (B. Bojanov). On the applications of the Peano representation of linear functionals in numerical analysis (H. Brass and K.-J. Förster). Inequalities due to T.S. Nanjundiah (P.S. Bullen). Marcinkiewicz-Zygmund inequalities: Methods and results (D.S. Lubinsky). Shapiro's inequality (A.M. Fink). Bernstein type inequalities for rational functions with prescribed poles (N.K. Govil and R.N. Mohapatra). Some generalisations and refinements of the Hardy inequality (H. Heining, A. Kufner and L.E. Persson). Discrete inequalities of Wirtinger's type (G.V. Milovanović and I.Ž. Milovanović). Convexity properties of special functions and their zeros (M.E. Muldoon). Inequalities in circular arithmetic: A survey (Lj.D. Petković and M.S. Petković). Properties of isometries and approximate isometries (Th.M. Rassias). Inequalities for the zeros of an orthogonal expansion of a polynomial (G. Schmeisser). Error inequalities for discrete Hermite and spline interpolation (P.J.Y. Wong and R.P. Agarwal). Contributed papers. An inequality concerning symmetric functions and some applications (D. Andrica and L. Mare). A note on the second largest eigenvalue of star-like trees (F.K. Bell and S.K. Simić). Refinements of Ostrowski's and Fan-Todd's inequalities (M. Bjelica). On the stability of the quadratic functional equation and related topics (S. Czerwik). A Dirichlet-type integral inequality (W.N. Everitt). On the Hyers-Ulam-Rassias stability of mappings (P. Găvruta). Functions with quasi-convex derivatives (V. Govedarica and M. Jovanović). Local approximation by quasi-polynomials (Yu. Kryakin). Logarithmic concavity of distribution functions (M. Merkle). Sharpening of Cauchy inequality (Ž. Mijalković and M. Mijalković). A note on the least constant in Landau inequality on a finite interval (A.Yu. Shadrin). Some inequalities involving harmonic numbers (M.S. Stanković, B.M. Danković and S.B. Tričković). Inequalities for polynomials in L_0 norm (E.A. Storozenko). Some inequalities for altitudes and other elements of triangle (M.R. Žižović and M.R. Stevanović). Author index.

Structured COBOL Programming, Eighth Edition, Year 2000 Update Edition. By Nancy Stern and Robert A. Stern. John Wiley & Sons, New York. (1999). 722 pages. \$75.95 (diskette included).

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I. The basics. 1. An introduction to Structured Program Design in COBOL. 2. The IDENTIFICATION and ENVIRONMENT DIVISIONS. 3. The DATA DIVISION. 4. Coding complete COBOL programs: The PROCEDURE DIVISION. II. Designing structured programs. 5. Designing and debugging batch and interactive COBOL programs. 6. Moving data, printing information, and displaying output interactively. 7. Computing in COBOL: The arithmetic verbs and intrinsic functions. 8. Decision making using the IF and EVALUATE statements. 9. Iteration: Beyond the basic PERFORM. III. Writing high-level COBOL programs. 10. Control break processing. 11. Data validation. 12. Array processing and table handling. IV. File maintenance. 13. Sequential file processing. 14. Sorting and merging. 15. Indexed and relative file processing. V. Advanced topics. 16. Improving program performance using the COPY, CALL, and other statements. 17. The report writer module. 18. An introduction to object-oriented programming. Appendixes. A. COBOL character set and reserved words. B. Data set for Programming Assignment 2 in each chapter. C. Differences among the COBOL standards. D. COBOL for the AS/400. E. Glossary. Index. 19. COBOL and the Year 2000 program. Interpreting instruction formats. Program design features.

Modern Differential Geometry of Curves and Surfaces with Mathematica (Second edition). By Alfred Gray. CRC Press, Boca Raton, FL. (1998). 1053 pages. \$84.95.

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1. Curves in the plane. 2. Studying curves in the plane with *Mathematica*. 3. Famous plane curves. 4. Alternate methods for plotting plane curves. 5. New curves from old. 6. Determining a plane curve from its curvature. 7. Global properties of plane curves. 8. Curves in space. 9. Tubes and knots. 10. Construction of space curves. 11. Calculus on Euclidean space. 12. Surfaces in Euclidean space. 13. Examples of surfaces. 14. Nonorientable surfaces. 15. Metrics on surfaces. 16. Surfaces in 3-dimensional space. 17. Surfaces in 3-dimensional space via *Mathematica*. 18. Asymptotic curves on surfaces. 19. Ruled surfaces. 20. Surfaces of revolution. 21. Surfaces of constant Gaussian curvature. 22. Intrinsic surface geometry. 23. Differentiable manifolds. 24. Riemannian manifolds. 25. Abstract surfaces. 26. Geodesics on surfaces. 27. The Gauss-Bonnet theorem. 28. Principal curves and umbilic points. 29. Triply orthogonal systems of surfaces. 30. Minimal surfaces. 31. Minimal surfaces and complex variables. 32. Minimal surfaces via the Weierstrauss representation. 33. Minimal surfaces via Björling's formula. 34. Construction of surfaces. 35. Canal surfaces and cyclides of Dupin. 36. Inversions of curves and surfaces. Appendixes. A. General programs. B. Curves. C. Surfaces. D. Plotting programs. Bibliography. Index. Name index. Mini-program and *Mathematica* command index.