

1985. In addition to 9 invited papers there are 28 contributed papers organized in five parts: Results on Computational Linear Algebra; Discrete Variable Methods; Polynomial and Rational Approximation Methods; Variational Methods and Special Techniques; Applications. The titles and authors of the invited papers are: "Recent progress in the two-dimensional approximation of three-dimensional plate models in nonlinear elasticity" by Philippe G. Ciarlet; "Formulation of alternating-direction iterative methods for mixed methods in three space" by Jim Douglas, Jr., Ricardo Durán and Paola Pietra; "Iterative methods for singular systems" by Ivo Marek; "On different numerical methods to solve singular boundary problems" by Francisco Michavila; "Some numerical techniques for the solution of problems related to semiconductor devices" by John J. H. Miller; "Recent progress in the numerical treatment of singular problems for partial differential equations with techniques based on the tau method" by Eduardo L. Ortiz; "Present state and new trends in parallel computation" by Rafael Portaencasa and Carlos Vega; "Finite element methods for treating problems involving singularities, with applications to linear elastic fracture" by J. R. Whiteman; "Finite element solution of the fundamental equations of semiconductor devices" by Miloš Zlámal.

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11[41-02].—C. K. CHUI, L. L. SCHUMAKER & J. D. WARD (Editors), *Approximation Theory V*, Academic Press, Orlando, Fla., 1986, xviii + 654 pp., 23½ cm. Price \$65.00.

These are the proceedings of the Fifth International Symposium on Approximation Theory held at Texas A&M University in College Station, Texas, January 13-17, 1986. They contain nine survey papers (229 pages) and 98 short research papers (390 pages). The titles of the survey papers, and their authors, are: "Positive quadrature methods and positive polynomial sums" by Richard Askey; "Bases in function spaces" by Z. Ciesielski; "Some recent convergence results on diagonal Padé approximants" by A. A. Gonchar; "Box splines" by Klaus Höllig; "Polynomial approximation numbers, capacities and extended Green functions for C and C^N " by J. Korevaar; "Group theoretical methods in approximation theory, elementary number theory, and computational signal geometry" by Walter Schempp; "Some recent results on Walsh theory of equiconvergence" by A. Sharma; "Scientific computation on some mathematical conjectures" by Richard S. Varga; "Some constrained approximation problems" by Joseph D. Ward. The volume concludes with an update of some 450 additional items to the bibliography on Bernstein type operators [1] published in the proceedings of the previous conference.

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1. HEINZ H. GONSKA & JUTTA MEIER, "A bibliography on approximation of functions by Bernstein type operators (1955-1982)," *Approximation Theory IV* (C. K. Chui, L. L. Schumaker & J. D. Ward, Editors), Academic Press, New York, 1983, pp. 739-785.