REVIEWS AND DESCRIPTIONS OF TABLES AND BOOKS

The numbers in brackets are assigned according to the American Mathematical Society classification scheme. The 1991 Mathematics Subject Classification can be found in the annual subject index of *Mathematical Reviews* starting with the December 1990 issue.

8[65-02, 65F10, 65L05, 76D05, 65N99].—GURI I. MARCHUK (Editor), *Numerical Methods and Applications*, CRC Press, Boca Raton, FL, 1994, x + 272 pp., 24 cm. Price $59.95.

This volume contains six articles by leading Russian numerical analysts working in Moscow. They are selected and translated, in some cases in slightly modified form, from Vol. 8 in a series entitled *Numerical Processes and Systems* and which is associated with the Institute of Numerical Mathematics of the Russian Academy of Science. Even though the quality of presentation and translation is somewhat uneven, the volume gives a good overview of the activity that is presently pursued in numerical mathematics in Moscow. We refrain from reviewing the papers individually but indicate the scope of the volume by reproducing its table of contents:

> E. G. Dyakonov, *Iterative Methods Based on Linearization for Nonlinear Elliptic Grid Systems.*
>
> V. I. Lebedev, *How to Solve Stiff Systems of Differential Equations by Explicit Methods.*
>
> G. M. Kobelkov, *On Numerical Methods of Solving the Navier-Stokes Equations in "Velocity-Pressure" Variables.*
>
> R. P. Fedorenko, *Stiff Systems of Ordinary Differential Equations.*
>
> A. A. Zlotnik, *Convergence Rate Estimates of Finite-Element Methods for Second-Order Hyperbolic Equations.*
>
> N. S. Bakhvalov and A. V. Knyazev, *Fictitious Domain Methods and Computation of Homogenized Properties of Composites with a Periodic Structure of Essentially Different Components.*

V. T.

9[65L05].—B. P. SOMMEIJER, *Parallelism in the Numerical Integration of Initial Value Problems*, CWI Tracts, Vol. 99, Centrum voor Wiskunde en Informatica, Amsterdam, 1993, vi + 195 pp., 24 cm. Price: Softcover Dfl.50.00.

During 1988, the Centrum voor Wiskunde en Informatica, in Amsterdam,