

This text will be most useful to those who need a brief and light introduction to modern developments in numerical techniques for initial value odes and for those who wish to explore some of the less widely known techniques for special problems. For a deeper understanding of the subject, the reader may need to turn to one of the other texts mentioned above. There is a good bibliography of over 600 references. Peculiarly, the page numbering in the text does not correspond to that in the list of contents.

#### REFERENCES

1. J. C. Butcher, *The numerical analysis of ordinary differential equations: Runge-Kutta and general linear methods*, Wiley, Chichester, UK, 1987.
2. C. W. Gear, *Numerical initial value problems in ordinary differential equations*, Prentice-Hall, Englewood Cliffs, NJ, 1971.
3. E. Hairer, S. P. Norsett and G. Wanner, *Solving ordinary differential equations I, nonstiff problems*, Springer-Verlag, Berlin and New York, 1987.
4. G. Hall and J. M. Watt (eds.), *Modern numerical methods for ordinary differential equations*, Oxford University Press, Oxford, 1976.
5. P. Henrici, *Discrete variable methods in ordinary differential equations*, Wiley, New York, 1962.
6. —, *Error propagation for difference methods*, Wiley, New York, 1963.
7. J. D. Lambert, *Computational methods in ordinary differential equations*, Wiley, New York, 1973.
8. L. F. Shampine and M. K. Gordon, *Computer solution of ordinary differential equations: the initial value problem*, Freeman, San Francisco, 1975.

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*Infinite crossed products*, by D. S. Passman. Academic Press, New York, 460 pp., \$84.50. ISBN 0-12-546390-1

Classically, crossed products of arbitrary finite groups over fields were introduced by E. Noether in 1929 in her lectures in Göttingen [vdW]. Earlier, the special case of cyclic algebras was defined by Dickson in 1906 [D1, D2]; the first significant result about them was proved by Wedderburn in 1914 [W]. These crossed products