1 Book reviews

Difference Equations and Inequalities
Ravi P. Agarwal
Marcel Dekker, Inc., New York, 1992, 777 pages,
ISBN: 0-8247-8676-9.

This new monograph combines all aspects of the
theory and methods of solution of difference equa-
tions and their applications in 'real-world' prob-
lems - providing in-depth coverage of more than
400 recent publications.
There are not many books available that treat
the subject of difference equations, so this mono-
graph with the wealth of information it contains
is very welcome. Agarwal is primarily concerned
with the theoretical aspects of difference equa-
tions. This is already clear in the first chapter
where, apart from some preliminaries, discrete
versions of Rolle's theorem, Taylor's formula and
de l'Hospital's rule are given. Not much is said
about the numerical aspects of difference equa-
tions, such as the calculation of non-dominant so-
lutions of linear systems, but most of the relevant
references can be found in the Reference sections.
To give an idea of the book's contents : chapter
2 is an introduction to linear initial value prob-
lems (comparable with K.S. Miller's book *Linear
difference equations* published by Benjamin, New
York in 1968). In the following chapter several
well known difference equations (such as Duff-
ing's, Van der Pol's, the logistic equation,...) are
discussed. Chapters 4, 11 and 12 deal with dif-
ference inequalities, in one and several variables,
and in chapters 5 and 6 qualitative properties
of the solutions of difference equations are stud-
ied: asymptotic behaviour of solutions, stability
of linear systems, Lyapunov stability theory, os-
cillatory and non-oscillatory difference equations,
dominant and recessive (minimal) solutions of dif-
ference equations and so on. Chapters 7 and
8 deal with methods to solve boundary value
problems for linear and also nonlinear systems :
method of chasing, method of imbedding, method
of sweep, Newton's method, ... and also Miller's
and Olver's algorithms.
And there is much more.

P. Levrie

2 Announcements of confer-
ences

JEE'93
European Symposium on
NUMERICAL METHODS IN
ELECTROMAGNETICS

Date: 17–19 November, 1993.

Location: Toulouse, France.

Other information: CAM-Newsletter 9, nr. 2.

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International Symposium on
SPECIAL FUNCTIONS,
APPROXIMATION,
NUMERICAL QUADRATURE AND
ORTHOGONAL POLYNOMIALS

In recognition of Walter Gautschi's contributions
to mathematics and computer science, and to cel-
ebrate his sixty-fifth birthday, a conference is to
be held in his honor.

Date: 2–4 December, 1993.

Location: Purdue Univ., West Lafayette, Indiana,
U.S.A.

Sponsor: Purdue University.

Invited speakers:
The program is comprised of invited talks on the
four main themes of the conference:
One-hour speakers: R.A. Askey, E.W. Cheney, G.
Dahlquist, G.H. Golub, W.B. Gragg, J. Korevaar,
J.N. Lyness, F.W.J. Olver, R.S. Varga.
Half-hour speakers: A. Bellen, J.C. Butcher,
J.R. Cash, P.J. Davis, C. de Boor, B.D. Flury,
D. Gottlieb, M.H. Gutknecht, A. Iserles, W.B.
Jones, H.J. Landau, S. Li, G. Mastroianni, C.A.
Micchelli, G.V. Milovanovic, G. Monegato, M.E.
Muldoon, S.E. Notaris, L. Reichel, W.C. Rhein-
boldt, T.J. Rivlin, S. Ruscheweyh, E. Saff, F.