power series expansions into Chebyshev expansions. Programs that transform rational approximations into continued fraction form, on the other hand, are not included.

Contrary to what the title of the book might suggest, the algorithms provided here are not sufficiently complete and polished so as to be suitable for inclusion in a subroutine library. None of the algorithms, e.g., incorporates provisions for error control. Neither is there any discussion as to how different algorithms, valid in different (complementary) regions of the independent variable, are to be combined in order to produce efficient polyalgorithms. The material assembled in the book, nonetheless, may prove useful in constructing algorithms for computing special functions, particularly functions for which alternative methods are not readily available. It is to be expected, however, that the resulting algorithms are expensive in terms of computational effort, particularly if the generation of the coefficients is part of the algorithm. Of necessity, this will be the case if the coefficients are themselves functions of freely variable parameters.

W. G.

1. Y. L. LUKE, *The Special Functions and their Approximations*, vols. I, II, Academic Press, New York, 1969.

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3[5.15].—E. BOHL, L. COLLATZ & K. P. HADELER, Editors, *Numerik und Anwendungen von Eigenwertaufgaben und Verzweigungsproblemen,* International Series of Numerical Mathematics, Birkhäuser Verlag, Basel, Switzerland, 1977, 218 pp., 24 cm. Price approximately sfr. 42.

This volume contains papers presented at a meeting organized by the editors. This meeting took place at the Mathematical Research Institute at Oberwolfach, Germany from November 14–20, 1976.

4[4].—W. G. SPOHN, *Table of Integral Cuboids and Their Generators,* 4 pp. + 45 pp. reduced size computer printout, deposited in the UMT file, 1978.

A list of 2472 integral cuboids with maximum edge less than 10^9 is presented. They are ordered by the shortest edge. Results from other tables [1], [2], [3], [4] are used, additional searches are made, formulas for families of solutions [2], [5] are evaluated, and new solutions are derived from known solutions. Thus with modest computer effort a great number of cuboids are found, using double precision on the IBM 360/91. Since no general formula is known, an extensive list of many of the smallest cases should be useful to researchers in the field.

One seeks solutions in positive integers to the three equations

$$x^2 + y^2 = w^2, \quad x^2 + z^2 = v^2, \quad y^2 + z^2 = u^2,$$

where x, y, z yield edges of the cuboid and u, v, w face diagonals. In the table the solutions are ordered with $x < y < z$. There are 13 columns of data, one for the entry number, three for the edges, three for the face diagonals, and six for the Kraitchik generators. There are two entries with shortest edge less than 10^2; 14, less than 10^3; 56, less than 10^4; 177, less than 10^5; 566, less than 10^6; 1283, less than 10^7; 2140, less than 10^8. Since previous tables missed cases with shortest edge equal to 30, 156 or less, we cannot hope for any degree of completeness. No doubt a few cases less than 10^5 are missing and many cases less than 10^6.

An integral cuboid is called perfect, if the inner diagonals are also positive integers. This requires solutions to the fourth equation

$$x^2 + y^2 + t^2.$$

It is not known whether perfect cuboids exist. There are none in this table.

The 4-page text attached to the table gives a detailed comparison of the present table and those in [1]–[4].

AUTHOR'S SUMMARY

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4. M. LAL & W. J. BLUNDON, "Solutions of the Diophantine equations $x^2 + y^2 = l^2$, $y^2 + z^2 = m^2$, $z^2 + x^2 = n^2$," *Math. Comp.*, v. 20, 1966, pp. 144–147.

5. M. RIGNAUX, "Système $x^2 + y^2 = a^2$, $x^2 + z^2 = b^2$, $y^2 + z^2 = c^2$," *Intermédiare Math.*, v. 25, 1918, p. 127.

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