

forms by A. Erdélyi, W. Magnus, F. Oberhettinger, and F. G. Tricomi, Vol. 1, McGraw-Hill Book Co., New York, 1954 (see *MTAC*, Vol. 10, 1956, pp. 252–254) is marked in that the arrangement of the one-dimensional material under review is much akin to that of the work just mentioned. The current work contains more transforms than the Erdélyi et al. volume. For example, there are transforms of numerous sectionally rational functions and Mathieu functions. Aside from this, there appear to be few if any transforms which can not be readily deduced from those in the latter volume.

The list of transforms in Chapters 3 and 4 are the most extensive I have ever seen. True, these results can be built up from the pertinent material in Chapters 1 and 2. Nonetheless, applied workers should appreciate the short cuts provided by the present tables.

We have spot checked various portions of the tables against other lists. The only error found is formula 1.1.4. There in the $f(t)$ column for $(at - b)$ read $f(at - b)$. Regrettably, the printing of the tables is incredibly poor. We have not seen the original Russian edition and so do not know if the present tables were reset or are a photocopy of the original.

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5[7].—VINCENT P. GUTSCHICK & OLIVER G. LUDWIG, *Table of Exact Integrals of Products of Two Associated Legendre Functions*, Department of Chemistry, California Institute of Technology and Department of Chemistry, Villanova University. Ms. of 40 computer sheets deposited in the UMT file.

Let

$$I(l_1, m_1, l_2, m_2) = \int_{-1}^1 P_{l_1}^{m_1}(x) P_{l_2}^{m_2}(x) dx .$$

This manuscript table presents exact (rational) values of all nonvanishing and non-redundant integrals I , where the l 's and m 's individually assume all integer values from 0 to 12, inclusive.

An introduction of three pages explains the method of computation and gives other pertinent information.

For a technique to compute a generalization of this integral, see a paper by J. Miller [1]. Another related paper is one by S. Katsura and his coworkers [2].

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1. JAMES MILLER, "Formulas for integrals of products of associated Legendre or Laguerre functions," *Math. Comp.*, v. 17, 1963, pp. 84–87.

2. S. KATSURA, Y. INOUE, S. HAMASHITA & J. E. KILPATRICK, *Tables of Integrals of Threefold and Fourfold Products of Associated Legendre Functions*, The Technology Reports of the Tôhoku University, v. 30, 1965, pp. 93–164. [See *Math. Comp.*, v. 20, 1966, pp. 625–626, RMT 98.]

6[7].—Тs. D. LOMKATSI, *Tablitsy Ellipticheskoi Funktsii Veiershtrassa (Tables of Weierstrassian Elliptic Functions)*, Computation Center of the Academy of Science of the U.S.S.R., Moscow, 1967, xxxii + 88 pp., 27 cm. Price 1.06 roubles (paperbound).

An elaborate mathematical introduction to these tables was prepared by V. M.