second kind, $Q_\nu^\mu(s)$, when the order μ is an integer m, the degree ν is a half-odd integer $n - 1/2$, and the argument s exceeds unity.

The first table gives $Q_{n-1/2}^m(s)$ to 11S for $m = 0(1)5$, n varying from 0 through consecutive integers to a value (at least 29) for which the value of the function relative to that when n is zero is less than 10^{-12}, and $s = 1.1(0.1)10$.

The second table differs from the first with respect to the argument, which here is $\cosh \eta$, where $\eta = 0.1(0.1)3$. As noted in the abstract and explained in the introduction, this form of the argument appears naturally in the solution of the potential problem in toroidal coordinates.

The last two tables consist of 16S values of $Q_{n-1/2}^m(s)$ for $n = 0$ and 1, for the same range of values of m, s, and η as in the first two tables. These more extended decimal approximations were calculated independently by means of well-known formulas relating these toroidal functions to the complete elliptic integrals of the first and second kinds.

A useful introduction of 12 pages gives the derivation of these functions as solutions of Laplace's equation in toroidal coordinates, enumerates their principal properties, develops a continued fraction for the ratio of such functions of consecutive degree, and discusses the mathematical methods used in calculating the tables on IBM 1620 and IBM 7090 systems. Appended to the introduction is a list of five references.

Photographic offset printing of these tables from the computer sheets has not been completely satisfactory, as may be inferred from the two pages of corrigenda inserted to clarify a number of indistinctly printed tabular digits.

Despite such typographical imperfections, these extensive tables should prove generally useful to applied mathematicians.

J. W. W.

37[7].—M. KUMAR & G. K. DHAWAN, *Numerical Values of Certain Integrals Involving a Product of Two Bessel Functions*, Maulana Azad College of Technology, Bhopal, report and tables deposited in the UMT file.

In numerous applied problems, one encounters

$$I(\mu, \nu, \lambda) = \int_0^\infty e^{-pt} t^\lambda J_\mu(at) J_\nu(bt)\, dt.$$

A discussion of this integral with references to tables is given by Luke [1]. Let $a = t/h$; $b = u/h$; $u, t = 0.2(0.2)1.0$; $p = 2$; and $h = 1.05, 1.10, 1.30$ and 1.50. For all possible combinations of these parameters the authors tabulate $I(\mu, \nu, \lambda)$ to 6D for $\mu = \nu = 0, 1$, $\lambda = 1, 2, 3$, and for $\mu = 1$, $\nu = 0$ and $\lambda = 3$. All the integrals can be expressed in terms of the complete elliptic integrals of the first and second kinds. These expressions are delineated in an introduction to the tables.

Y. L. L.

1. Y. L. LUKE, *Integrals of Bessel Functions*, McGraw-Hill Book Co., New York, 1962, pp. 314–318. (See also *Math. Comp.*, v. 17, 1963, pp. 318–320.)

38[9].—L. M. CHAWLA & S. A. SHAD, "On a trio-set of partition functions and their tables", Table, *J. Natur. Sci. and Math.*, v. 9, 1969, pp. 87–96.