theorems. 3. Integral representations and asymptotic expansions. 4. Zeros of Bessel functions, Fourier-Bessel series and Hankel transforms. 5. Some finite and infinite definite integrals containing Bessel functions. 6. Dual integral and dual series equations. 7. The equations of mathematical physics: solution by separation of variables. 8. The equations of mathematical physics: solution by integral transforms.

Contrary to what might be inferred from the second sentence of the preface quoted, for the most part one can only claim that Chapters 6–8 present material not given by Watson. I find the lack of references disturbing. The bibliography consists of only nine books. On p. 82 and p. 84, reference is made to V. G. Smith's formula and to a study of certain integrals by H. F. Willis, respectively, but the sources are not given.

To the novice who wants to get at some tools quickly, the volume will be useful. However, except for the new material noted above, I would much prefer to use Watson. On the plus side of the ledger, each chapter contains a number of exercises which should prove useful for self-study purposes. Chapters 6–8 are enhanced by inclusion of physical applications.

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26 [7].—Serge Colombo & Jean Lavoine, *Transformations de Laplace et de Mellin*, Gauthier-Villars, Paris, 1972, xiii + 170 pp., 24 cm. Price F 96.— (paper bound).

There are several tables of integrals of transforms available. These are all essentially of the same kind since the integrals are defined in the sense of Riemann with the further proviso that we also include integrals of the Cauchy principal value type. The present volume is distinctive in that it contains material not found in previous compilations.

In rather recent times, items such as distributions, modified distributions and pseudo-functions have received considerable attention. The terminology "generalized functions" is often used. It is not our purpose to define these concepts, but an example is useful for the review at hand. With sufficient regularity conditions on $g(t)$, $G(\nu) = \int_\alpha^\beta t^{\nu'+\nu} g(t)\,dt$ is meromorphic in the half plane $R(\nu) > -R(\nu') - 1$. Let Pf stand for pseudo-function. Then $Pf \int_\alpha^\beta g(t)\,dt$ equals $G(-\nu')$ if $-\nu'$ is a regular point, and equals the constant term in the Laurent expansion of $G(\nu)$ about $-\nu'$, if $-\nu'$ is a pole. This is Hadamard's finite part of the integral. Thus, in a table of Laplace transforms $\int_0^\infty e^{-pt} g(t)\,dt$, the Laplace transform of $g(t) = t^{-1/2}$ is $(\pi/p)^{1/2}$, and the corresponding pseudo-function for $g(t) = t^{-1}$ is $-(\gamma + \ln p)$.

The volume at hand is in two parts. The first is a general discussion of integral transforms as ordinarily conceived, generalized functions and their transforms with special emphasis on Laplace transforms (both one-sided and two-sided), Mellin transforms and their inverses. The second is a list of particular transforms of the above type, including ordinary as well as the corresponding pseudo-functions.

This useful tome contains a fairly complete bibliography. A table of notations is also included.

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