obtained from a given one-step method by averaging the last k-iterates. Results on the domains of convergence and acceleration are obtained, both of which may be much larger than the domain of convergence of the original method.

4. WACKER, H. J.: *A method for nonlinear boundary value problems.* To solve the operator equation $T(y) = 0$, the problem is embedded in a family $T(s, y) = 0$ with $0 \leqq s \leqq 1$, and such that $T(0, y) = 0$ is easily solvable, and such that $T(1, y) = T(y)$. For a sequence of s's, the solution for s_i can be used as a starting value for the computation at s_{i+1}.

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18[2.10].—V. I. KRYLOV & A. A. PAL'TSEV, *Tables for Numerical Integration of Functions with Logarithmic and Power Singularities*, translated from Russian, Israel Program for Scientific Translations, Jerusalem, 1971, iv + 172 pp., 25 cm. Price \$10.—.

The original edition of these tables was published in 1967 by the "Nauka i Tekhnika" Publishing House in Minsk.

Herein are tabulated the elements of four Gaussian quadrature formulas involving the respective weight functions $x^\alpha \ln(e/x)$, $x^\beta \ln(e/x) \ln[e/(1 - x)]$, $\ln(1/x)$, and $x^\beta e^{-x} \ln(1 + x^{-1})$. The range of integration for the first three is the interval (0, 1), while that for the fourth is $(0, \infty)$. The tabular points (nodes) and corresponding weight coefficients are uniformly presented to 15S in floating-point format, and the number of points extends from 1 to 10, inclusive. In Table 1 the exponent α assumes the values $-0.9(0.01)0(0.1)5$, while in Tables 2 and 4 the exponent β assumes the values 0(1)5.

Only the material in Table 3 appears to have been published elsewhere. An 8S table was given by Anderson [1] and an extensive 30S table appears in the book of Stroud & Secrest [2], which confirms the accuracy of Table 3.

Two examples of the application of Table 1 are presented, and interpolation with respect to α in that table is discussed in detail.

A bibliography of six items contains a reference to the paper of Anderson but not to the work of Stroud & Secrest, which presumably was not available to the authors.

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1. D. G. ANDERSON, "Gaussian quadrature formulae for $\int_0^1 - \ln x f(x)\, dx$," *Math. Comp.*, v. 19, 1965, pp. 477–481.
2. A. H. STROUD & DON SECREST, *Gaussian Quadrature Formulas*, Prentice-Hall, Englewood Cliffs, N.J., 1966. (See *Math. Comp.*, v. 21, 1967, pp. 125–126, RMT **14**.)

19[2.20].—B. DEJON & P. HENRICI, Editors, *Constructive Aspects of the Fundamental Theorem of Algebra*, John Wiley & Sons, New York, 1969, vii + 337 pp., 23 cm. Price \$9.95.

These papers are the published proceedings of a symposium held on June 5–7,