

algorithms, or with difficulties that may arise in their computer implementation. Aside from this, the book gives a useful introduction to the calculation of fixed points by simplicial methods. It is carefully and clearly written, and contains a number of examples and exercises.

R. B. KELLOGG

Institute for Physical Science and Technology
 Space Sciences Building
 College Park, Maryland 20742

15 [2.30, 7.05].—R. WILLIAM GOSPER, JR., *Table of the Simple Continued Fraction for π and the Derived Decimal Approximation*, Artificial Intelligence Laboratory, Stanford University, October 1975, ms. of 248 pages, 8½" × 11", deposited in the UMT file.

This attractively printed table of the first 204,103 partial quotients in the simple continued fraction for π , conveniently arranged in consecutively numbered blocks of 100 entries (with 25 on each line), supersedes an earlier unpublished table by the same author, referred to in [1].

The derived value of π , displayed to 210,130D, has been successfully compared with the value to 1,000,000D, given in [2]. From theory due to Khintchine and Lévy it may be deduced that for almost all real numbers the number of decimal places corresponding to n partial quotients is approximately equal to K^{2n+1} , where $K = \exp[\pi^2/(12 \ln 2)]$ is Lévy's constant. In particular, this yields 210,356D corresponding to the number of partial quotients listed in the present table, which is in acceptably good agreement with the accuracy actually attained.

A detailed examination of the table by this reviewer revealed a total of 30 partial quotients each exceeding 10^4 . In this case the Gauss-Kuzmin law predicts a total of $[204103 \ln(10002/10001)]/\ln 2 \doteq 29$ for almost all real numbers.

These large partial quotients are as follows:

i	a_i	i	a_i
431	20776	120516	32080
15543	19055	125615	13245
23398	19308	130015	10419
28421	78629	130089	10777
51839	17538	141705	10577
61844	52403	145491	13414
70158	36848	153278	33914
81027	15365	156381	179136
81547	10528	159492	14727
85619	27192	160927	19472
86841	20567	165898	45181
96278	47475	167582	19983
109404	15366	175623	12167
109526	12586	181517	26532
115122	11295	182291	37554

J. W. W.

1. MTE 521, *Math. Comp.*, v. 30, 1976, p. 381.

2. J. GILLOUD & M. BOUYER, *Un Million de Décimales de π* , Commissariat à l'Energie Atomique, Paris, 1974.