

# A FORTRAN MULTIPLE-PRECISION ARITHMETIC PACKAGE

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## ABSTRACT

A collection of ANSI Standard Fortran subroutines for performing multiple-precision floating-point arithmetic and evaluating elementary and special functions is described. The subroutines are machine independent and the precision is arbitrary, subject to storage limitations. The design of the package is discussed, some of the algorithms are described, and test results are given.

## COMMENTS

Only the Abstract is given here. The full paper appeared as [1] and the algorithm appeared as [2]. For related work see [3, 4, 5].

## REFERENCES

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- [4] R. P. Brent, "Unrestricted algorithms for elementary and special functions", in *Information Processing 80* (edited by S. H. Lavington), North-Holland, Amsterdam, 1980, 613–619. CR 22#38728, MR 81i:68009. rpb052.
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