QPSILN(3) QPSILN(3)

NAME

```
qpsiln - Quadruple-precision psi(x) - ln(x)
```

SYNOPSIS

```
Fortran (77, 90, 95, HPF):

f77 [ flags ] file(s) ... -L/usr/local/lib -lgjl

REAL*16 FUNCTION qpsiln(x)

REAL*16 x

C (K&R, 89, 99), C++ (98):

cc [ flags ] -l/usr/local/include file(s) ... -L/usr/local/lib -lgjl

Use

#include <gampsi.h>
```

to get this prototype:

NB: The definition of C/C++ data types **fortran**_xxx, and the mapping of Fortran external names to C/C++ external names, is handled by the C/C++ header file. That way, the same function or subroutine name can be used in C, C++, and Fortran code, independent of compiler conventions for mangling of external names

fortran_quadruple_precision qpsiln(const fortran_quadruple_precision * x_);

in these programming languages.

Last code modification: 01-Aug-2000

DESCRIPTION

Return the value of psi(x) - ln(x), computed so as to avoid unnecessary subtraction loss.

SEE ALSO

```
dgamma(3), dpsi(3), dpsiln(3), gamma(3), psi(3), psiln(3), qgamma(3), qpsi(3).
```

AUTHORS

The algorithms and code are described in detail in the paper

Algorithm xxx: Quadruple-Precision Gamma(x) and psi(x) Functions for Real Arguments in ACM Transactions on Mathematical Software, Volume ??, Number ??, Pages ????--???? and ????--????, 2001, by

Nelson H. F. Beebe

Center for Scientific Computing

University of Utah

Department of Mathematics, 110 LCB

155 S 1400 E RM 233

Salt Lake City, UT 84112-0090

Tel: +1 801 581 5254 FAX: +1 801 581 4148

Email: beebe@math.utah.edu, beebe@acm.org, beebe@computer.org

WWW URL: http://www.math.utah.edu/~beebe

and

James S. Ball University of Utah Department of Physics Salt Lake City, UT 84112-0830 USA Tel: +1 801 581 8397

FAX: +1 801 581 6256

Email: ball@physics.utah.edu

WWW URL: http://www.physics.utah.edu/people/faculty/ball.html