ALGAM(3) ALGAM(3)

#### **NAME**

```
algam - Single-precision ln(abs(Gamma(x)))
```

## **SYNOPSIS**

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

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

REAL FUNCTION algam(x)

REAL 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:

fortran_real algam(const fortran_real * x_);
```

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 in these programming languages.

Last code modification: 03-Aug-2000

## **DESCRIPTION**

Return  $ln(abs(Gamma(\mathbf{x})))$ , where  $\mathbf{x}$  is any representable value. Unlike  $gamma(\mathbf{x})$ , which overflows for even modest  $\mathbf{x}$ , the return of this function is finite and representable for all  $\mathbf{x} > 0$ .

#### **SEE ALSO**

```
dlgam(3), qlgam(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

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