

**NAME**

gsl - GNU Scientific Library

**SYNOPSIS**

```
#include <gsl/...>
```

**DESCRIPTION**

The GNU Scientific Library (GSL) is a collection of routines for numerical computing. The routines are written from scratch by the GSL team in C, and present a modern Applications Programming Interface (API) for C programmers, allowing wrappers to be written for very high level languages.

The library covers the following areas,

- Complex Numbers
- Roots of Polynomials
- Special Functions
- Vectors and Matrices
- Permutations
- Combinations
- Sorting
- BLAS Support
- Linear Algebra
- Eigensystems
- Fast Fourier Transforms
- Quadrature
- Random Numbers
- Quasi-Random Sequences
- Random Distributions
- Statistics
- Histograms
- N-Tuples
- Monte Carlo Integration
- Simulated Annealing
- Differential Equations
- Interpolation
- Numerical Differentiation
- Chebyshev Approximations
- Series Acceleration
- Discrete Hankel Transforms
- Root-Finding

Minimization  
Least-Squares Fitting  
Physical Constants  
IEEE Floating-Point

For more information please consult the GSL Reference Manual, which is available as an info file. You can read it online using the shell command **info gsl-ref** (if the library is installed).

Please report any bugs to **bug-gsl@gnu.org**.