

**NAME**

`gsl-randist` - generate random samples from various distributions

**SYNOPSIS**

**`gsl-randist seed n DIST param1 param2 [..]`**

**DESCRIPTION**

**`gsl-randist`** is a demonstration program for the GNU Scientific Library. It generates `n` random samples from the distribution `DIST` using the distribution parameters `param1`, `param2`, ...

**EXAMPLE**

Here is an example. We generate 10000 random samples from a Cauchy distribution with a width of 30 and histogram them over the range -100 to 100, using 200 bins.

```
gsl-randist 0 10000 cauchy 30 | gsl-histogram -100 100 200 > histogram.dat
```

A plot of the resulting histogram will show the familiar shape of the Cauchy distribution with fluctuations caused by the finite sample size.

```
awk '{print $1, $3 ; print $2, $3}' histogram.dat | graph -T X
```

**SEE ALSO**

**`gsl(3)`, `gsl-histogram(1)`.**

**AUTHOR**

**`gsl-randist`** was written by James Theiler and Brian Gough. Copyright 1996-2000; for copying conditions see the GNU General Public Licence.

This manual page was added by the Dirk Eddelbuettel <edd@debian.org>, the Debian GNU/Linux maintainer for **GSL**.