

Package ‘fftw’

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Version 1.0-3

Title Fast FFT and DCT based on FFTW

Description Provides a simple and efficient wrapper around the fastest Fourier transform in the west (FFTW) library.

Author Sebastian Krey <skrey@statistik.tu-dortmund.de> Uwe Ligges <ligges@statistik.tu-dortmund.de> Olaf Mersmann <olafm@statistik.tu-dortmund.de>

Maintainer Olaf Mersmann <olafm@statistik.tu-dortmund.de>

Depends R (>= 2.12.0)

SystemRequirements fftw3 (>= 3.1.2)

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FFT

Calculate (inverse) DFT using the FFT method

Description

see title

Usage

```
FFT(x, ..., plan)
IFFT(x, ..., plan, scale=TRUE)
DCT(x, ..., plan, type=1)
IDCT(x, ..., plan, type=1, scale=TRUE)
```

Arguments

x	(complex) vector to process
...	ignored
plan	FFTW plan, can be missing
scale	scale results
type	type of DCT

Author(s)

Olaf Mersmann <olafm@statistik.uni-dortmund.de>

See Also

[planFFT](#)

Examples

```
n <- 2**16
x <- rnorm(n)
p <- planFFT(n)
y <- FFT(x, plan=p)
```

`planFFT` *Create FFTW plan*

Description

see title

Usage

```
planFFT(n, effort=0)
planDCT(n, type=1, effort=0)
```

Arguments

<code>n</code>	size of transform
<code>type</code>	type of DCT
<code>effort</code>	how hard fftw tries to find an optimal plan (0 to 3)

Author(s)

Olaf Mersmann <olafm@statistik.uni-dortmund.de>

See Also

[FFT](#) and [IFFT](#)

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