

Package ‘latex2exp’

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Type Package

Title Use LaTeX Expressions in Plots

Version 0.5.0

Date 2021-03-14

Description Parses and converts LaTeX math formulas to R's plotmath expressions, used to enter mathematical formulas and symbols to be rendered as text, axis labels, etc. throughout R's plotting system.

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URL <https://github.com/stefano-meschiari/latex2exp>

BugReports <https://github.com/stefano-meschiari/latex2exp/issues>

Imports stringr, magrittr

LazyData TRUE

Suggests testthat, knitr, ggplot2, plyr, rmarkdown, purrr, tibble

VignetteBuilder knitr

RoxygenNote 7.1.1

Language en-US

NeedsCompilation no

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latex2exp	<i>Converts a LaTeX string to a plotmath expression. Deprecated; use TeX instead.</i>
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Description

Converts a LaTeX string to a [plotmath](#) expression. Deprecated; use [TeX](#) instead.

Usage

```
latex2exp(string, output = c("expression", "text", "ast"))
```

Arguments

string	A character vector containing LaTeX expressions. Note that any backslashes must be escaped (e.g. "\$\alpha").
output	The returned object, one of "expression" (default, returns a plotmath expression ready for plotting), "text" (returns the expression as a string), and "ast" (returns the tree used to generate the expression).

Value

Returns an expression (see the output parameter).

latex2exp_examples	<i>Plots a number of example LaTeX string, as parsed by TeX.</i>
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Description

Plots a number of example LaTeX string, as parsed by [TeX](#).

Usage

```
latex2exp_examples()
```

latex2exp_supported *Returns a list of all supported LaTeX symbols and expressions that can be converted with [latex2exp](#).*

Description

Returns a list of all supported LaTeX symbols and expressions that can be converted with [latex2exp](#).

Usage

```
latex2exp_supported(plot = FALSE)
```

Arguments

plot whether to plot the table (FALSE by default)

Value

a character vector of supported LaTeX expressions

plot.expression *Plots an expression on the current graphical device.*

Description

Plots an expression on the current graphical device.

Usage

```
## S3 method for class 'expression'  
plot(x, ...)
```

Arguments

x A [plotmath](#) expression.
... Parameters to be passed to the [text](#) function.

<code>print.latextoken</code>	<i>Prints out a parsed LaTeX object, as returned by <code>TeX(..., output='ast')</code>.</i>
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Description

Prints out a parsed LaTeX object, as returned by `TeX(..., output='ast')`.

Usage

```
## S3 method for class 'latextoken'
print(x, ...)
```

Arguments

<code>x</code>	The latex2exp object.
<code>...</code>	(ignored)

<code>TeX</code>	<i>Converts a LaTeX string to a plotmath expression.</i>
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Description

Converts a LaTeX string to a [plotmath](#) expression.

Usage

```
TeX(
  string,
  bold = FALSE,
  italic = FALSE,
  output = c("expression", "character", "ast")
)
```

Arguments

<code>string</code>	A character vector containing LaTeX expressions. Note that any backslashes must be escaped (e.g. <code>"\$alpha"</code>).
<code>bold</code>	Whether to make the entire label bold
<code>italic</code>	Whether to make the entire label italic
<code>output</code>	The returned object, one of "expression" (default, returns a plotmath expression ready for plotting), "character" (returns the expression as a string), and "ast" (returns the tree used to generate the expression).

Value

Returns an expression (see the output parameter).

Examples

```
TeX("$\\alpha$")
TeX("The ratio of 1 and 2 is $\\frac{1}{2}$")

a <- 1:100
plot(a, a^2, xlab=TeX("$\\alpha$"), ylab=TeX("$\\alpha^2$"))
```

toString.latextoken	<i>Converts a token created by TeX() to a string, later to be parsed into an expression (for internal use).</i>
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Description

Converts a token created by TeX() to a string, later to be parsed into an expression (for internal use).

Usage

```
## S3 method for class 'latextoken'
toString(x, ...)
```

Arguments

x	The TeX() token
...	Additional arguments (ignored)

Value

A string

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