Package ‘latex2exp’

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Type Package
Title Use LaTeX Expressions in Plots
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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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BugReports https://github.com/stefano-meschiari/latex2exp/issues
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latex2exp

Converts a LaTeX string to a `plotmath` expression. Deprecated; use `TeX` instead.

### Description

Converts a LaTeX string to a `plotmath` expression. Deprecated; use `TeX` instead.

### Usage

```r
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

Plots a number of example LaTeX string, as parsed by TeX.

### Description

Plots a number of example LaTeX string, as parsed by TeX.

### Usage

```r
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

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plot.expression

Plots an expression on the current graphical device.

**Description**

Plots an expression on the current graphical device.

**Usage**

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

**Arguments**

- `x`: A `plotmath` expression.
- `...`: Parameters to be passed to the `text` function.
print.latextoken

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

Description

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

Usage

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

Arguments

x The latex2exp object.
... (ignored)

TeX

Converts a LaTeX string to a plotmath expression.

Description

Converts a LaTeX string to a plotmath expression.

Usage

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

Arguments

string A character vector containing LaTeX expressions. Note that any backslashes must be escaped (e.g. "$\alpha").
bold Whether to make the entire label bold
italic Whether to make the entire label italic
output 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("$\alpha^2$"))

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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