

Package ‘MapRtools’

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Title Tools for genetic mapping
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Description Tools for genetic mapping
Depends R (>= 3.5.0)
License GPL-3
LazyData true
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Encoding UTF-8
Imports ggplot2, scam
Suggests knitr, rmarkdown
VignetteBuilder knitr

R topics documented:

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| | |
|---------------|---|
| plot_coverage | <i>Plot marker coverage of the genome</i> |
|---------------|---|

Description

Plot marker coverage of the genome

Usage

```
plot_coverage(map, limits = NULL)
```

Arguments

| | |
|--------|--|
| map | data frame with columns chrom & position |
| limits | optional data frame with columns chrom & position, with the maximum length for each chromosome |

Details

If limits not provided, then the maximum values in map are used.

Value

ggplot2 variable

| | |
|------------|-----------------------------------|
| plot_haplo | <i>Visualize haplotype dosage</i> |
|------------|-----------------------------------|

Description

Visualize haplotype dosage in diploid biparental population from two inbreds

Usage

```
plot_haplo(geno, map)
```

Arguments

| | |
|------|---|
| geno | matrix of haplotype dosages (markers x indiv) |
| map | data frame with 3 columns (marker, chrom, position) |

Details

Input matrix geno should have rownames attribute that matches marker names in the first column of map.

Value

ggplot object

| | |
|---------|----------------------------|
| plot_LD | <i>Plot LD vs distance</i> |
|---------|----------------------------|

Description

Plot LD vs distance

Usage

```
plot_LD(r2, map, max.pair = 10000, dof = 5)
```

Arguments

| | |
|----------|---|
| r2 | squared correlation matrix |
| map | data frame with 3 columns (marker, chrom, position) |
| max.pair | maximum number of r2 pairs for the spline |
| dof | degrees of freedom for the spline |

Details

A monotone decreasing, convex spline is fit using R package `scam`. The input matrix `r2` should have rownames attribute that matches marker names in the first column of `map`.

Value

ggplot object

| | |
|---------|---------------------------|
| plot_r2 | <i>Plot heatmap of LD</i> |
|---------|---------------------------|

Description

Plot heatmap of LD (squared correlation)

Usage

```
plot_r2(r2)
```

Arguments

| | |
|----|----------------------------|
| r2 | squared correlation matrix |
|----|----------------------------|

Value

ggplot2 variable

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