

# Package ‘clusterhap’

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**Type** Package

**Title** Clustering Genotypes in Haplotypes

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**Description** One haplotype is a combination of SNP (Single Nucleotide Polymorphisms) within the QTL (Quantitative Trait Loci). clusterhap groups together all individuals of a population with the same haplotype. Each group contains individual with the same allele in each SNP, whether or not missing data. Thus, clusterhap groups individuals, that to be imputed, have a non-zero probability of having the same alleles in the entire sequence of SNP's. Moreover, clusterhap calculates such probability from relative frequencies.

**Depends** R (>= 2.10)

**License** GPL-3

**LazyData** TRUE

**RoxygenNote** 5.0.1

**Suggests** knitr, rmarkdown, testthat

**VignetteBuilder** knitr

**Imports** graphics, utils

**NeedsCompilation** no

**Repository** CRAN

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clusterhap	<i>clusterhap function identifies haplotypes within QTL.</i>
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**Description**

This function groups together all individuals of a population with the same haplotype.

**Usage**

```
clusterhap(x, Print = FALSE)
```

**Arguments**

x	a data.frame that should be loaded with read.table function. Each row represents the individuals while each column represents the markers. The first column contains the names of the genotypes.
Print	option for print the clusterhap result. The default is FALSE

**Details**

Each group contains individual with the same allele in each SNP, whether or not missing data.

**Value**

a matrix with the haplotypes

**Author(s)**

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**See Also**

read.table function

**Examples**

```
#### Simple simulated data
data("sim_qtl")
clusterhap(sim_qtl, Print=TRUE)

### Real experimental data

## Not run:
data(rice_qtl)
clusterhap(rice_qtl)

## End(Not run)
```

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rice_qtl	<i>Real experimental data</i>
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**Description**

The data is a QTL for rice Grain Quality

**Usage**

rice\_qtl

**Format**

A data frame 326 rows (individual) and 38 variables (SNPs)

**Source**

Uruguayan Rice Breeding GWAS (URiB)

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sim_qtl	<i>simple QTL simulated</i>
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**Description**

A dataset containing the marcadores

**Usage**

sim\_qtl

**Format**

A data frame 5 rows (individuals) and 7 variables (snps)

**Source**

simulated data

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