

Package ‘FnR’

April 17, 2024

Title Inbreeding and Numerator Relationship Coefficients

Version 0.0.0.1

Description Compute inbreeding coefficients using the method of Meuwissen and Luo (1992) <[doi:10.1186/1297-9686-24-4-305](https://doi.org/10.1186/1297-9686-24-4-305)>, and numerator relationship coefficients between individuals using the method of Van Vleck (2007) <PMID:18050089>.

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Roxygen list(markdown = TRUE)

RoxygenNote 7.3.1

Imports gggroups

Suggests knitr, rmarkdown

VignetteBuilder knitr

NeedsCompilation no

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R topics documented:

FnR-package	1
dam_dam	2
notsire_notdam	2
sire_sire	3
Index	4

FnR-package

FnR: Inbreeding and Numerator Relationship Coefficients

Description

Compute inbreeding coefficients using the method of Meuwissen and Luo (1992) [doi: 10.1186/12979686244305](https://doi.org/10.1186/12979686244305), and numerator relationship coefficients between individuals using the method of Van Vleck (2007) <PMID:18050089>.

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dam_dam	<i>Compute numerator relationship coefficients between two groups of dams</i>
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Description

Compute numerator relationship coefficients between two groups of dams

Usage

```
dam_dam(ped, set1, set2)
```

Arguments

ped : A data frame with the first columns being ID, SIRE, and DAM. Missing parents (SIRE and DAM) are denoted as 0.

set1 : A set of dam IDs.

set2 : A set of dam IDs, distinct from set1.

Value

: Numerator relationship coefficients between set1 and set2 individuals.

Examples

```
message("TODO:")
```

notsire_notdam	<i>Compute numerator relationship coefficients between non-sires and non-dams</i>
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Description

Compute numerator relationship coefficients between non-sires and non-dams

Usage

```
notsire_notdam(ped, notsire, notdam)
```

Arguments

ped : A data frame with the first columns being ID, SIRE, and DAM. Missing parents (SIRE and DAM) are denoted as 0.

notsire : A set of individual IDs that cannot be found among ped\$SIRE.

notdam : A set of individual IDs (distinct from notsire) that cannot be found among ped\$DAM.

Value

: Numerator relationship coefficients between not sire and not dam individuals.

Examples

```
message("TODO:")
```

sire_sire	<i>Compute numerator relationship coefficients between two groups of sires</i>
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Description

Compute numerator relationship coefficients between two groups of sires

Usage

```
sire_sire(ped, set1, set2)
```

Arguments

ped : A data frame with the first columns being ID, SIRE, and DAM. Missing parents (SIRE and DAM) are denoted as 0.

set1 : A set of sire IDs.

set2 : A set of sire IDs, distinct from set1.

Value

: Numerator relationship coefficients between set1 and set2 individuals.

Examples

```
message("TODO:")
```

Index

* **internal**

FnR-package, [1](#)

dam_dam, [2](#)

FnR (FnR-package), [1](#)

FnR-package, [1](#)

notsire_notdam, [2](#)

sire_sire, [3](#)