

Package ‘IRR2FPR’

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Title Computing False Positive Rate from Inter-Rater Reliability

Version 0.1.1

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Description

Implements a 'Shiny Item Analysis' module and functions for computing false positive rate and other binary classification metrics from inter-rater reliability based on Bartoš & Martinková (2024) <[doi:10.1111/bmsp.12343](https://doi.org/10.1111/bmsp.12343)>.

URL <https://github.com/FBartos/IRR2FPR>

BugReports <https://github.com/FBartos/IRR2FPR/issues>

License GPL-3

Encoding UTF-8

Config/ShinyItemAnalysis/module true

Imports shiny, mvtnorm

RoxygenNote 7.2.3

NeedsCompilation no

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Repository CRAN

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```
compute_false_negative_rate
```

Compute the false negative rate

Description

Compute the false negative rate based on the inter-rater reliability and the proportion of selected candidates

Usage

```
compute_false_negative_rate(IRR, proportion_selected)
```

Arguments

IRR	The inter-rater reliability
proportion_selected	The proportion of selected candidates

Value

The false negative rate

Examples

```
compute_false_negative_rate(0.75, 0.10)
```

```
compute_false_positive_rate
```

Compute the false positive rate

Description

Compute the false positive rate based on the inter-rater reliability and the proportion of selected candidates

Usage

```
compute_false_positive_rate(IRR, proportion_selected)
```

Arguments

IRR	The inter-rater reliability
proportion_selected	The proportion of selected candidates

Value

The false positive rate

Examples

```
compute_false_positive_rate(0.75, 0.10)
```

```
compute_proportion_of_correctly_selected
```

Compute the proportion of correctly selected candidates

Description

Compute proportion of correctly selected candidates based on the inter-rater reliability and the proportion of selected candidates

Usage

```
compute_proportion_of_correctly_selected(IRR, proportion_selected)
```

Arguments

IRR	The inter-rater reliability
proportion_selected	The proportion of selected candidates

Value

The proportion of correctly selected candidates

Examples

```
compute_proportion_of_correctly_selected(0.75, 0.10)
```

compute_true_positive_rate
Compute the true positive rate

Description

Compute the true positive rate based on the inter-rater reliability and the proportion of selected candidates

Usage

```
compute_true_positive_rate(IRR, proportion_selected)
```

Arguments

IRR The inter-rater reliability
proportion_selected The proportion of selected candidates

Value

The true positive rate

Examples

```
compute_true_positive_rate(0.75, 0.10)
```

IRR2FPR *Interactive Module for Inter-Rater Reliability to False Positive Rate Conversion*

Description

This module allows users to convert inter-rater reliability (IRR) to false positive rate (FPR) as described in Bartoš and Martinková (2024).

Author(s)

František Bartoš

References

Bartoš, F., & Martinková, P. (2024). Selecting applicants based on multiple ratings: Using binary classification framework as an alternative to inter-rater reliability. *British Journal of Mathematical and Statistical Psychology*. doi:10.1111/bmsp.12343

spearman_brown_formula

Compute IRR from the Spearman-Brown formula

Description

Compute the inter-rater reliability based on the Spearman-Brown formula

Usage

```
spearman_brown_formula(IRR_1, n_raters)
```

Arguments

IRR_1	The inter-rater reliability of the first rater
n_raters	The number of raters

Value

The inter-rater reliability

Examples

```
spearman_brown_formula(0.5, 3)
```

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