

# Package ‘ROCagggregator’

August 10, 2021

**Title** Aggregate Multiple ROC Curves into One Global ROC

**Version** 1.0.1

**Description** Aggregates multiple Receiver Operating Characteristic (ROC) curves obtained from different sources into one global ROC. Additionally, it’s also possible to calculate the aggregated precision-recall (PR) curve.

**License** MIT + file LICENSE

**Encoding** UTF-8

**RoxygenNote** 7.1.1

**Imports** utils, magrittr

**Suggests** testthat (>= 3.0.0), mockery, mockr, knitr, rmarkdown, ROCR, pROC, pracma, stats

**Config/testthat/edition** 3

**VignetteBuilder** knitr

**URL** <https://gitlab.com/UM-CDS/general-tools/rocagggregator>

**BugReports** <https://gitlab.com/UM-CDS/general-tools/rocagggregator/-/issues>

**NeedsCompilation** no

**Author** Pedro Mateus [aut, cre] (<<https://orcid.org/0000-0002-3047-7630>>)

**Maintainer** Pedro Mateus <pedro-cm@live.com.pt>

**Repository** CRAN

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partial_cm	<i>Compute the global confusion matrix from the FPR and TPR obtained from each node</i>
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**Description**

Compute the global confusion matrix from the FPR and TPR obtained from each node

**Usage**

```
partial_cm(
  fpr,
  tpr,
  thresholds,
  negative_count,
  total_count,
  descending = FALSE
)
```

**Arguments**

fpr	list - False positive rates for each individual ROC
tpr	list - True positive rates for each individual ROC
thresholds	list - Thresholds used to compute the fpr and tpr
negative_count	list - Total number of samples corresponding to the negative case
total_count	list - Total number of samples
descending	thresholds in descending order?

**Value**

global confusion matrix and thresholds

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precision_recall_curve	<i>Compute the precision recall curve</i>
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**Description**

Compute the precision recall curve

**Usage**

```
precision_recall_curve(fpr, tpr, thresholds, negative_count, total_count)
```

**Arguments**

fpr	list - False positive rates for each individual ROC.
tpr	list - True positive rates for each individual ROC.
thresholds	list - Thresholds used to compute the fpr and tpr.
negative_count	vector - Total number of samples corresponding to the negative case.
total_count	vector - Total number of samples.

**Value**

list with the global precision, recall, and thresholds (increasing)

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roc_curve	<i>Compute Receiver operating characteristic (ROC)</i>
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**Description**

Compute Receiver operating characteristic (ROC)

**Usage**

```
roc_curve(fpr, tpr, thresholds, negative_count, total_count)
```

**Arguments**

fpr	list - False positive rates for each individual ROC
tpr	list - True positive rates for each individual ROC
thresholds	list - Thresholds used to compute the fpr and tpr
negative_count	vector - Total number of samples corresponding to the negative case
total_count	vector - Total number of samples

**Value**

list with the global fpr, tpr, and thresholds (decreasing)

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`shift_vector`*Shift a vector left or right according to the value provided*

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**Description**

Shift a vector left or right according to the value provided

**Usage**

```
shift_vector(x, n)
```

**Arguments**

<code>x</code>	the vector
<code>n</code>	shift

**Value**

the vector shifted

**Examples**

```
shift_vector(c(1,2,3,4), 1)  
shift_vector(c(1,2,3,4), -1)
```

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