R documentation

of 'distErrorPlot.Rd'

September 3, 2020

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distErrorPlot *Generate box plot or violin plot showing how errors are distributed.*

Description

Generate violin plot or box plot showing how errors are distributed by proportion bins of 0.1. The errors can be displayed all mixed or split based on cell type (CellType) or number of cell types present in the sample (nMix). See facet.by argument and examples for more information.

Usage

```
distErrorPlot(
  object,
  error,
  colors,
  x.by = "pBin",
  facet.by = NULL,
  color.by = "nMix",
  filter.sc = TRUE,
  error.labels = FALSE,
  pos.x.label = 4.6,
  pos.y.label = NULL,
  size.point = 0.1,
  alpha.point = 1,
  type = "violinplot",
  ylimit = NULL,
  nrow = NULL,
  ncol = NULL,
  title = NULL,
  theme = theme_grey(),
  ...
)
```

Arguments

object	DigitalDLSorter object with trained.model slot containing metrics in eval.stats.samples slot.
error	Which error is going to represent. The available errors are absolute error ("AbsErr"), proportional absolute error ("ppAbsErr"), squared error ("SqrErr") or proportional squared error ("ppSqrErr").
colors	Vector of colors to use. Only vectors with a number of colors equal to or greater than the levels of color.by will be accepted. By default it is used a list of custom colors provided by the package.
x.by	Variable used for x axis. When facet.by is not NULL, the best option is pBin (probability bin). The options are nMix (by number of different cell types), CellType (by cell type) and pBin.
facet.by	Variable used to display data in different panels. If it is NULL, the plot is not separated into different panels. The options are nMix (by number of different cell types) and CellType (by cell type).
color.by	Variable used to color data. The options are nMix and CellType.
filter.sc	Boolean indicating if filter single-cell profiles and only display errors associated with bulk samples (TRUE by default).
error.labels	Boolean indicating if show average error as annotation.
pos.x.label	Position on the X axis of the errors annotations.
pos.y.label	Position on the Y axis of the errors annotations.
size.point	Size of points (0.1 by default).
alpha.point	Alpha of points (0.1 by default).
type	Type of plot, 'boxplot' or 'violinplot'. The last by default.
ylimit	Upper limit in y axis if it is needed. NULL by default.
nrow	Number of rows if facet.by is different than NULL.
ncol	Number of columns if facet.by is different than NULL.
title	Title of the plot.
theme	ggplot theme.
...	Additional argument for facet_wrap ggplot function if facet.by is not equal to NULL.

See Also

calculateEvalMetrics corrExpPredPlot blandAltmanLehPlot barErrorPlot

Examples

```
distErrorPlot(
  object = DDLSChung,
  error = "AbsErr",
  facet.by = "CellType",
  color.by = "nMix",
  error.labels = TRUE,
  theme = theme_bw()
)

distErrorPlot(
```

```
  object = DDLSChung,
  error = "AbsErr",
  x.by = "CellType",
  facet.by = NULL,
  filter.sc = FALSE,
  color.by = "CellType",
  error.labels = TRUE
)
```

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