Package 'ATR'

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Title Alternative Tree Representation

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Version 0.1-1

Description Plot party trees in left-right orientation instead of the classical top-down layout.

Depends grid, partykit

Suggests trtf, mlbench

Imports stats

License GPL-2

NeedsCompilation no

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rotate *Change the class of a* party *object.*

Description

Adds a new class to party objects allowing rotated tree visualisations.

Usage

```
rotate(m, to = "left", ...)
```

Arguments

m	an object of class party
to	a character, only left is implemented at the moment.
...	additional arguments, currently ignored.

Details

Adds a new class allowing for improved tree printing.

Note

This package was written by the students participating in the Advanced R Programming course taught in spring semester 2017 at University of Zurich.

Examples

```
data("airquality", package = "datasets")
m <- ctree(Wind ~ . , data = airquality)
plot(rotate(m), main = "TREE", tnex = 1.5)

if (require("trtf")) {
  data("Ozone", package = "mlbench")
  Ozone <- subset(Ozone, complete.cases(Ozone))
  Ozone <- as.data.frame(lapply(Ozone, function(x) {
      x <- x[, drop = TRUE]
      if (is.factor(x)) return(as.ordered(x))
      x
  }))
  response <- "V4"
  Ozone[[response]] <- as.numeric(Ozone[[response]])

  ns <- 20
  fm <- V4 ~ V1 + V2 + V3 + V5 + V6 + V7 + V8 + V9 + V10 + V11 + V12 + V13
  mtry <- ceiling(length(all.vars(fm[[3]])) / 3)
  var_m <- numeric_var("V4", support = quantile(Ozone[[response]], prob = c(.1, .9)),
                   add = range(Ozone[[response]]) -
                               quantile(Ozone[[response]], prob = c(.1, .9)),
```

```
                    bounds = c(0, Inf))

    B_m <- Bernstein_basis(var_m, order = 4, ui = "increasing")
    uc_ctm_Ozone <- ctm(B_m, data = Ozone, todistr = "Normal")

    tt_Ozone <- trafotree(uc_ctm_Ozone, formula = fm, data = Ozone,
                control = ctree_control(mincriterion = .95, minsplit = 2*ns,
                                        minbucket = ns))

    plot(rotate(tt_Ozone), tp_args = list(type = "density", id = FALSE,
         ylines = 0, K = 100, fill = "lightgrey"),
         terminal_panel = trtf:::node_mlt)
}
```

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