Package ‘discrim’

October 13, 2022

Title  Model Wrappers for Discriminant Analysis
Version  1.0.0
Description  Bindings for additional classification models for use with
the 'parsnip' package. Models include flavors of discriminant
analysis, such as linear (Fisher (1936)
<doi:10.1111/j.1469-1809.1936.tb02137.x>), regularized (Friedman
(1989) <doi:10.1080/01621459.1989.10478752>), and flexible (Hastie,
Tibshirani, and Buja (1994) <doi:10.1080/01621459.1994.10476866>), as
well as naive Bayes classifiers (Hand and Yu (2007)
License  MIT + file LICENSE
URL  https://discrim.tidymodels.org/,
https://github.com/tidymodels/discrim/
BugReports  https://github.com/tidymodels/discrim/issues
Depends  parsnip (>= 0.2.0), R (>= 3.4)
Imports  dials, purrr, rlang, tibble, withr
Suggests  covr, dplyr, earth, ggplot2, klaR, knitr, MASS, mda, mlbench,
modeldata, naivebayes, rmarkdown, sda, sparsediscrim (>=
0.3.0), spelling, testthat (>= 3.0.0), xml2
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Encoding  UTF-8
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RoxygenNote  7.2.0.9000
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NeedsCompilation  no
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**frac_common_cov**

**Description**

discrim_regularized() describes the effect of frac_common_cov() and frac_identity(). smoothness() is an alias for the adjust parameter in stats::density().

**Usage**

frac_common_cov(range = c(0, 1), trans = NULL)

frac_identity(range = c(0, 1), trans = NULL)

smoothness(range = c(0.5, 1.5), trans = NULL)

**Arguments**

range A two-element vector holding the defaults for the smallest and largest possible values, respectively.

trans A trans object from the scales package, such as scales::log10_trans() or scales::reciprocal_trans(). If not provided, the default is used which matches the units used in range. If no transformation, NULL.

**Details**

These parameters can modulate a RDA model to go between linear and quadratic class boundaries.

**Value**

A function with classes "quant_param" and "param"

**Examples**

frac_common_cov()
**parabolic**

| parabolic | Parabolic class boundary data |

**Description**

Parabolic class boundary data

**Details**

These data were simulated. There are two correlated predictors and two classes in the factor outcome.

**Value**

parabolic a data frame

**Examples**

```r
data(parabolic)
library(ggplot2)
ggplot(parabolic, aes(x = X1, y = X2, col = class)) +
  geom_point(alpha = .5) +
  theme_bw()
```
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