# **R** documentation

of 'NEWS.Rd'

October 17, 2021

NEWS

News for Package DirichletReg

# Changes in Version 0.7-1.9000

- Fixed summary\_DirichletRegModel from erroneously issuing an error (convergence) when maxLik's maxNR returned convergence-code 8 (see help("maxNR",package = "maxLik"); thanks to Nick Thieme). Issued message is no longer an error but a warning if convergence criteria are not met.
- DirichReg() now evaluates formula in the parent frame to ensure that character-to-formula and similar applications can be processed correctly (see https://github.com/maiermarco/DirichletReg/issues/4).
- Added a coef method for objects of class summary\_DirichletRegModel generated by the summary method (see <a href="https://github.com/maiermarco/DirichletReg/issues/5">https://github.com/maiermarco/DirichletReg/issues/5</a>).
- C-Routines are now symbols prefixed with C\_ (e.g., C\_wght\_LL\_grad\_alternative).
- .onUnload now also unloads the DLL.
- Using **revdepcheck** to see if changes break other packages on CRAN or BioConductor.

# Changes in Version 0.7-1

- summary.DirichletRegModel now returns a summary\_DirichletRegModel-class object without printing it (see https://github.com/maiermarco/DirichletReg/issues/3).
- Moved **rmarkdown** to Suggests to comply with new version of **knitr** (see https://github.com/yihui/knitr/issues/1864).

#### Changes in Version 0.7-0

- Fixed: Cutoff in formula-deparsing removed.
- Removed **rgl** dependency (package will be loaded if necessary).
- Moved to GitHub.

#### Changes in Version 0.6-3

• Instead of producing an error, density functions now return NaN with a warning if any element in alpha is <= 0.

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#### Changes in Version 0.6-2

- Fixed an error in the ternary plot (bottom axis tick labels were printed in reversed order; pointed out by Emilio A. Laca).
- Imports functions from default packages, as required by the new CRAN-check.
- Changed the Description field to eliminate the note "Malformed Description field: should contain one or more complete sentences." when checking the package.

#### Changes in Version 0.6-1

- Re-derived gradients/Hessians, optimized C-code, and tweaked computation of starting values which leads to considerably better performance.
- Fixed some bugs in drop1.
- Expanded **testthat** checks.

#### Changes in Version 0.6-0

- All likelihood and gradient functions are now written in C (all called via .Call() now instead of .C()) which leads to a considerable gain in speed.
- A drop1 method for Dirichlet regression models was added. As it is still experimental and will probably change, use it with care. Options such as scope will be added in one of the next releases.
- Fixed a bug in the print method for confidence intervals and one in confint.DirichletRegModel().
- Expanded the **testthat** check- and test-suite.
- Known issue: If you have collinear (aliased) terms, the estimation will fail. This will be handled automatically in subsequent releases, but for now, please remove the respective terms. If you fit a model and it says something like:

```
Error in prepareFixed(start = start, activePar = NULL, fixed = fixed) :
At least one parameter must not be fixed using argument 'fixed'
```

you most likely have collinear terms or "empty" combinations of interaction terms.

#### Changes in Version 0.5-2

• Fixed checking functions in tests/testthat.

#### Changes in Version 0.5-1

- Fixed a bug when using the subset argument.
- Added tolerance for normalization check to DR\_data.
- moved NEWS to the new fancy NEWS.Rd file/format.
- Added the possibility to do quick analyses and transforming data "on the fly", like DirichReg(DR\_data(A) ~ 1). However this is only intended for quick checking purposes and may be removed at any time.

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#### Changes in Version 0.5-0

• Transformation in DR\_data is now not only TRUE/FALSE, but, by default, a small numeric value to avoid troubles with floating point numbers close to 0 or 1.

- Time-critical routines were implemented in C (pure R versions are available, see ?ddirichlet).
- anova.DirichletRegModel now invisibly returns results as an object that is printed by a method.
- · Optimized estimation routines.
- Fixed a bug in the predict method.
- Started development of a comprehensive test-suite using **testthat**.
- Published a working paper on the package:
   Maier, M. J. (2014). DirichletReg: Dirichlet Regression for Compositional Data in R. Research Report Series / Department of Statistics and Mathematics, 125. WU Vienna University of Economics and Business, Vienna. https://epub.wu.ac.at/4077/
- Added vignette with code to the working paper.
- Added citation info.

#### Changes in Version 0.4-1

- The trafo Argument of DR\_data has been changed, because it has lead to problems in practical applications when numbers very close to 0 or 1 were present.
- DR\_data checks for negative values and generates an appropriate error message.
- DR\_data has been made more robust in the presence of NAs.

# Changes in Version 0.4-0

- Data structure generated by DR\_data has changed the new objects can now be integrated into data frames.
- Formula processing is now handled by the package Formula.
- New methods have been implemented, especially for the class DirichletRegModel.
- The documentation is now quite complete.
- Some speed improvements could be achieved.
- Lots of minor (invisible) changes.

# **Changes in Version 0.002**

- Added the analytical Gradient and Hessian for both parametrizations.
- Optimization: preliminary results by BFGS that become starting values for Newton-Raphson optimization computing the final results.
- Implemented some residuals
- Updated help entries

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