betaMC: Monte Carlo for Regression Effect Sizes

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Description

Generates Monte Carlo confidence intervals for standardized regression coefficients (beta) and other effect sizes, including multiple correlation, semipartial correlations, improvement in R-squared, squared partial correlations, and differences in standardized regression coefficients, for models fitted by lm(). betamc combines ideas from Monte Carlo confidence intervals for the indirect effect (Pesigan & Cheung, 2023) and the sampling covariance matrix of regression coefficients (Dudgeon,

2017) to generate confidence intervals effect sizes in regression.

Installation

You can install the CRAN release of betaMC with:

install.packages("betaMC")

You can install the development version of betaMC from GitHub with:

if (!require("remotes")) install.packages("remotes")
remotes::install_github("jeksterslab/betaMC")

More Information

See GitHub Pages for package documentation.

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References

- Dudgeon, P. (2017). Some improvements in confidence intervals for standardized regression coefficients. *Psychometrika*, 82(4), 928–951. https://doi.org/10.1007/s11336-017-9563-z
- Pesigan, I. J. A., & Cheung, S. F. (2023). Monte Carlo confidence intervals for the indirect effect with missing data. Behavior Research Methods, 56(3), 1678–1696. https://doi.org/10.3758/s13428-023-02114-4
- R Core Team. (2024). R: A language and environment for statistical computing. R Foundation for Statistical Computing. Vienna, Austria. https://www.R-project.org/