Package 'nparACT'

September 24, 2025

Title Non-Parametric Measures of Actigraphy Data

Version 0.9.0

Description Computes interdaily stability (IS), intradaily variability (IV) & the relative amplitude (RA) from actigraphy data as described in Blume et al. (2016) <doi:10.1016/j.mex.2016.05.006> and van Someren et al. (1999) <doi:10.3109/07420529908 ditionally, it also computes L5 (i.e. the 5 hours with lowest average actigraphy amplitude) and M10 (the 10 hours with highest average amplitude) as well as the respective start times. The flex versions will also compute the L-value for a user-defined number of minutes. IS describes the strength of coupling of a rhythm to supposedly stable zeitgebers. It varies between 0 (Gaussian Noise) and 1 for perfect IS. IV describes the fragmentation of a rhythm, i.e. the frequency and extent of transitions between rest and activity. It is near 0 for a perfect sine wave, about 2 for Gaussian noise and may be even higher when a definite ultradian period of about 2 hrs is present. RA is the relative amplitude of a rhythm. Note that to obtain reliable results, actigraphy data should cover a reasonable number of days.

License GPL-3

Imports ggplot2, grid, stringr, zoo, tools

Language en-GB

LazyData true

RoxygenNote 7.3.2

Encoding UTF-8

Depends R (>= 3.5)

Suggests knitr, rmarkdown

VignetteBuilder knitr

NeedsCompilation no

Author Christine Blume [aut, cre] (ORCID: <https://orcid.org/0000-0003-2328-9612>)

Maintainer Christine Blume <christine.blume@unibas.ch>

Repository CRAN

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Contents

`sleepstudy` *Actigraphy results from a participant.*

Description

A dataset containing actimetry results for one participant. Data points have been collected every 15 sec and span approx. 3.5 days. The variables are as follows:

Usage

```
sleepstudy
```

Format

A txt file with 20000 rows and 2 variables:

Type Time stamp

Description Gives the activity measured with actigrapy (arbitrary number)

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