Package: ggsegIca (via r-universe)

August 22, 2024

Title ica datasets for the ggseg-plotting tool

Version 0.0.1

Description This is a support package for the ggseg, and ggseg3d packages. It contains the ica atlases to plot using functions from those two packages.

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Encoding UTF-8

RoxygenNote 7.1.1

Depends R (>= 3.5.0), ggseg, ggseg3d

LazyData true

LazyDataCompression xz

Suggests ggplot2, tidyr, knitr, rmarkdown, covr, testthat (>= 2.1.0), devtools

VignetteBuilder knitr

Repository https://ggseg.r-universe.dev

RemoteUrl https://github.com/ggseg/ggsegIca

RemoteRef HEAD

RemoteSha b37c7210e02074de865b8e64a815a2e4b9d03af8

Contents

`ica` *ICA atlas*

Description

from Abstract: "We present an integrated approach to probabilistic independent component analysis (ICA) for functional MRI (FMRI) data that allows for nonsquare mixing in the presence of Gaussian noise. In order to avoid overfitting, we employ objective estimation of the amount of Gaussian noise through Bayesian analysis of the true dimensionality of the data, i.e., the number of activation and non-Gaussian noise sources. This enables us to carry out probabilistic modeling and achieves an asymptotically unique decomposition of the data. It reduces problems of interpretation, as each final independent component is now much more likely to be due to only one physical or physiological process.

Usage

```
ica

ica_3d
```

Format

An object of class `brain_atlas` of length 4.

An object of class `ggseg3d_atlas` (inherits from `tbl_df`, `tbl`, `data.frame`) with 4 rows and 4 columns.

References

Beckmann, C. F., & Smith, S. M. (2004). Probabilistic independent component analysis for functional magnetic resonance imaging. IEEE transactions on medical imaging, 23(2), 137-152. (IEEEE)

- ica - ica atlas
- ica_3d - ica 3d mesh atlas

Examples

```
data(ica)
data(ica_3d)
```

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