

Package: ggsegJHU (via r-universe)

October 12, 2026

Title JHU White Matter Atlases for the 'ggseg' Ecosystem

Version 3.0.0

Description JHU and ICBM white matter atlases for the 'ggseg' ecosystem. Includes the JHU probabilistic tract atlas (Hua et al. 2008), built from its probabilistic maps as a tract atlas with a centerline per tract, and the ICBM-DTI-81 white matter labels (Mori et al. 2005). Both are coregistered to the FreeSurfer 'cvs_avg35_inMNI152' template so 2D slices show cortical reference outlines, and ship as 'ggseg_atlas' objects with 3D geometry for use with 'ggseg3d'.

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Encoding UTF-8

Depends R (>= 3.5)

Imports ggseg.formats (>= 0.0.4.9004)

Suggests ggseg, ggseg3d, ggplot2, knitr, rmarkdown, testthat (>= 3.0.0), vdiff

Remotes ggsegverse/ggseg, ggsegverse/ggseg.formats

URL <https://github.com/ggsegverse/ggsegJHU>

BugReports <https://github.com/ggsegverse/ggsegJHU/issues>

Roxygen list(markdown = TRUE)

RoxygenNote 7.3.3

Config/testthat/edition 3

Config/Needs/website ggsegverse/ggseg.docs

Config/Needs/lint dplyr, tidyverse, RNifti, ggseg, ggsegverse/ggseg.extra

Repository <https://ggsegverse.r-universe.dev>

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RemoteUrl <https://github.com/ggsegverse/ggsegJHU>

RemoteRef HEAD

RemoteSha 2ad2ef59db2df897300c6afa579157445d9496ae

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jhu_tracts	<i>JHU White Matter Tract Atlas</i>
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Description

JHU probabilistic white matter tract atlas with 20 tracts. Each tract is reduced to a principal-curve centerline, drawn as a 3D tube for `ggseg3d::ggseg3d()` and as a 2D projection over an anatomical silhouette.

Usage

```
jhu_tracts()
```

Details

Tracts are built from the atlas's probabilistic maps rather than FSL's distributed winner-take-all volume, in which tracts sharing a corridor erode each other: the temporal part of the superior longitudinal fasciculus survives there as 76 voxels of a bundle spanning several centimetres. Left and right of a tract share a colour, since they are the same anatomy.

Value

A `ggseg.formats::ggseg_atlas` object (tract).

References

Hua K, et al. (2008). Tract probability maps in stereotaxic spaces: analyses of white matter anatomy and tract-specific quantification. *NeuroImage*, 39(1):336-347. doi:10.1016/j.neuroimage.2007.07.053

See Also

Other ggseg_atlases: `jhu_wm()`

Other tract_atlases: `jhu_wm()`

Examples

```
jhu_tracts()
plot(jhu_tracts())
```

jhu_wm*ICBM-DTI-81 White Matter Atlas*

Description

White matter label atlas derived from the ICBM DTI-81 probabilistic atlas of 81 normal subjects, with 48 regions projected onto the FreeSurfer cvs_avg35_inMNI152 anatomical grid for cortical-reference context and smoother boundaries.

Usage

```
jhu_wm()
```

Value

A `ggseg.formats::ggseg_atlas` object (subcortical).

References

Mori S, et al. (2005). MRI Atlas of Human White Matter. Elsevier. ISBN: 978-0444517418
Wakana S, et al. (2007). Reproducibility of quantitative tractography methods applied to cerebral white matter. *NeuroImage*, 36(3):630-644. doi:[10.1016/j.neuroimage.2007.02.049](https://doi.org/10.1016/j.neuroimage.2007.02.049)

See Also

Other ggseg_atlases: [jhu_tracts\(\)](#)

Other tract_atlases: [jhu_tracts\(\)](#)

Examples

```
jhu_wm()  
plot(jhu_wm())
```

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