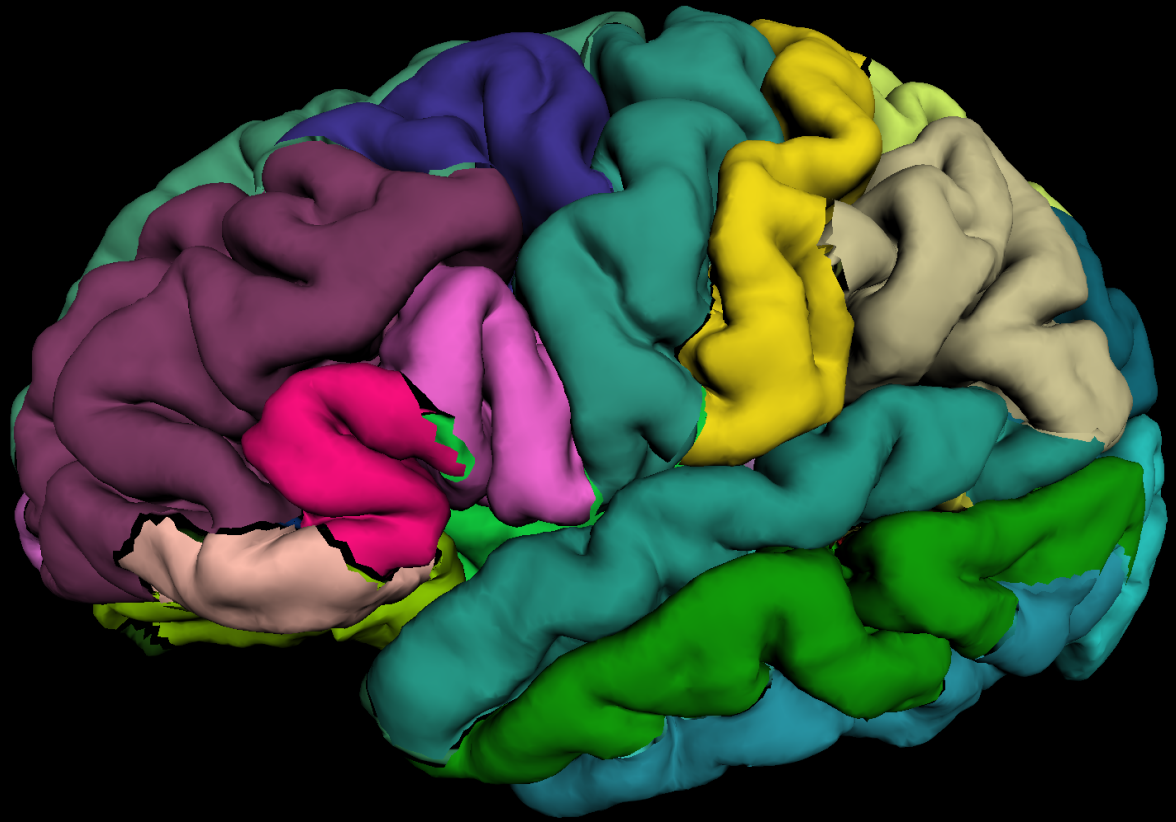
Brain shape visualization



Arno Klein . **Cor36 Hacker House** . arno@sagebase.org . Sage Bionetworks

Mindboggle

Data

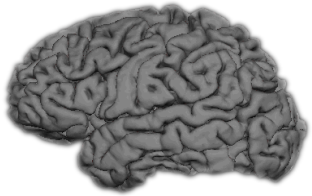
1. Introduction
2. Atlas and template used by the Mindboggle software
3. Mindboggle-101 atlases
4. Mindboggle-101 templates
5. Mindboggle-101: Individual manually labeled brain surfaces and volumes

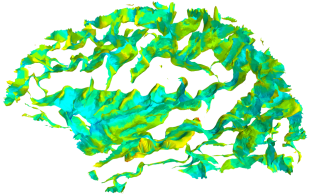
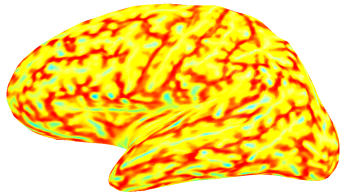
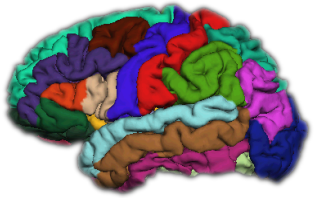
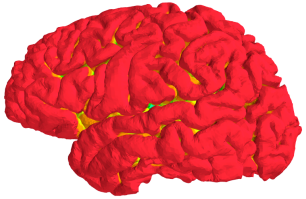
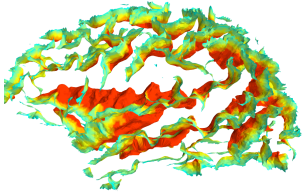
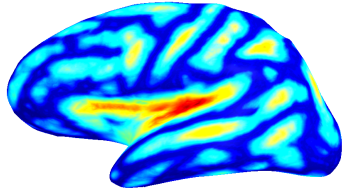
Introduction

Welcome to the world's largest collection of free, manually labeled human brain image data!

Please cite the following article and this website when making use of Mindboggle-101 data:
101 labeled brain images and a consistent human cortical labeling protocol
Arno Klein, Jason Tourville. Frontiers in Brain Imaging Methods. 6:171. DOI: 10.3389/fnins.2012.00171

All data below are also included in Synapse project pages, and except where noted,
all data are licensed under a Creative Commons License: (cc) BY-NC-SA
as nifti volumes (nii), vtk surfaces (vtk), and FreeSurfer files (mgh, etc.).
You can find out more about the data from the table of subjects, information
about the scans, scan sources, lists of labels, and the log of changes.

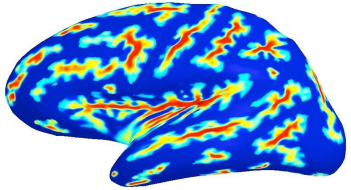
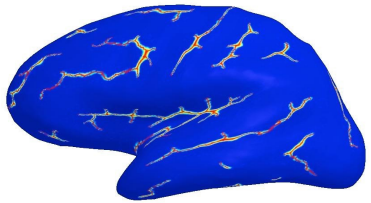


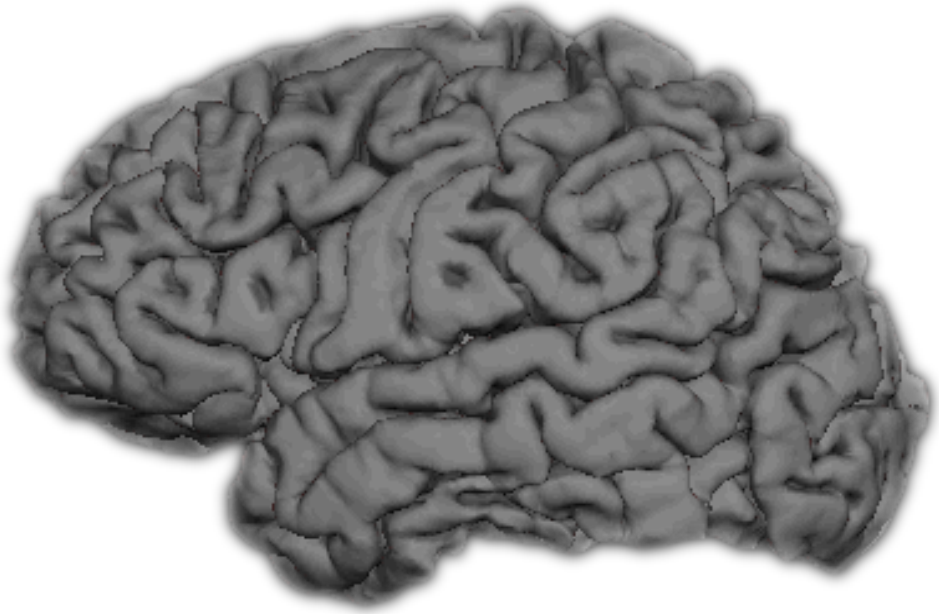
Mindboggle shape measures for brain structures:

http://mindboggle.info

travel depth
geodesic depth
mean curvature
FreeSurfer curvature
FreeSurfer thickness
volume/thickness
surface area
Laplace-Beltrami spectra
Zernike moments
…

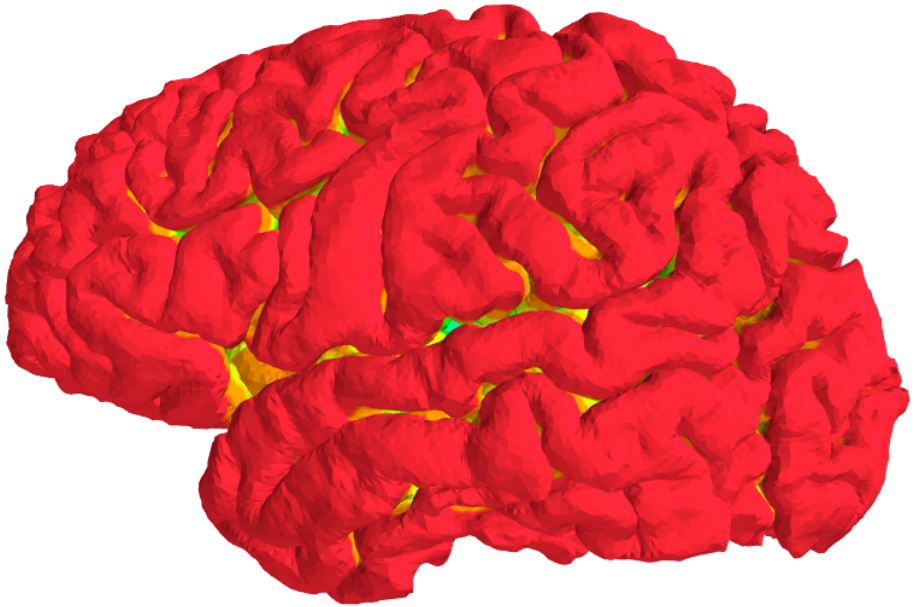



Cortical surface

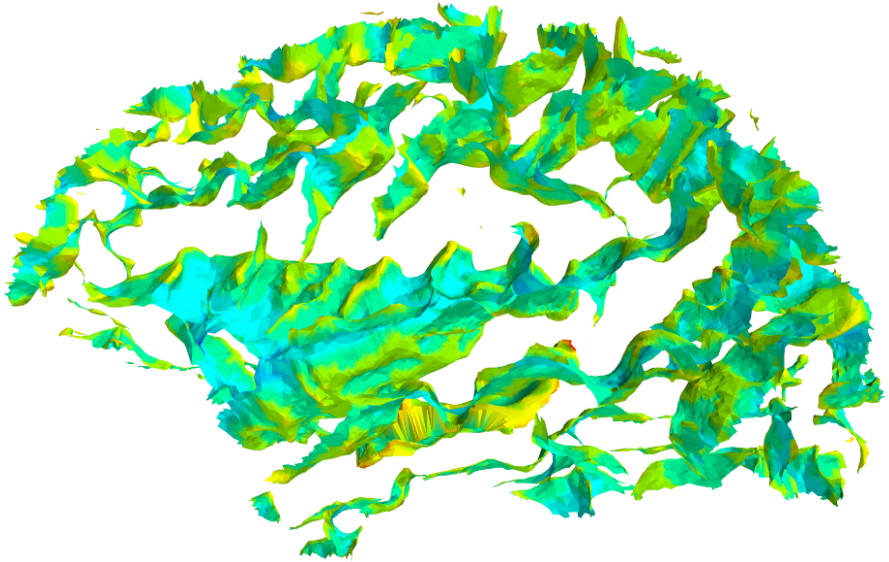


Mean curvature

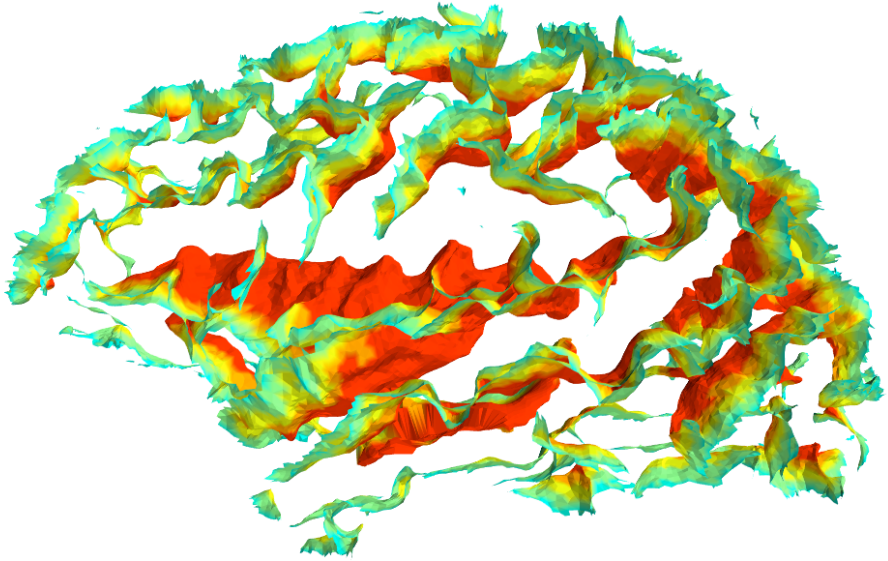
Travel depth



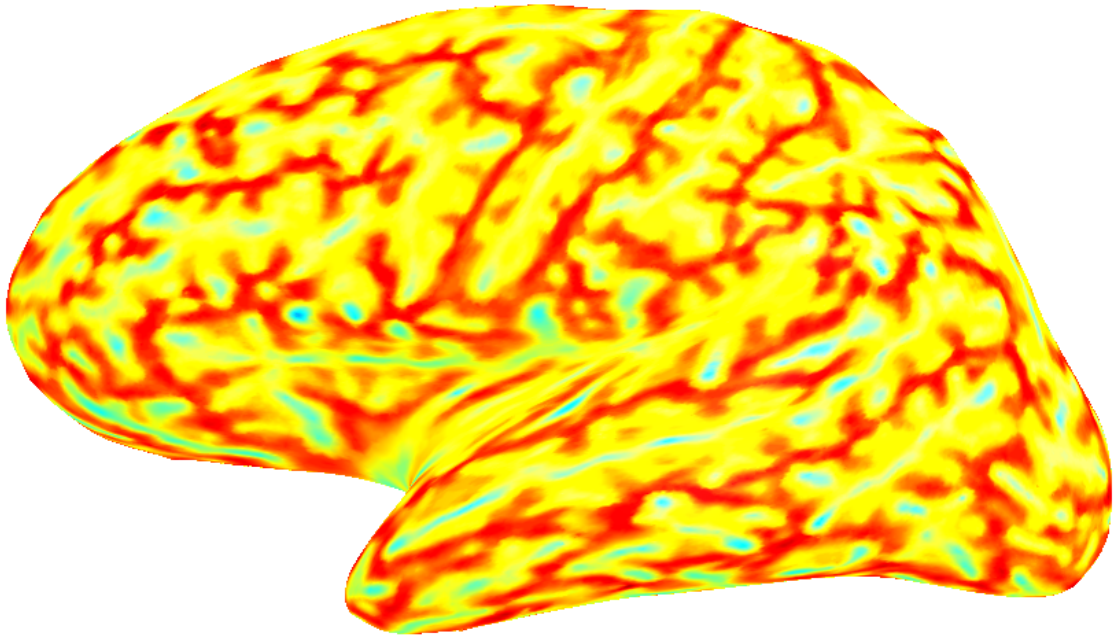
Mean curvature (folds)



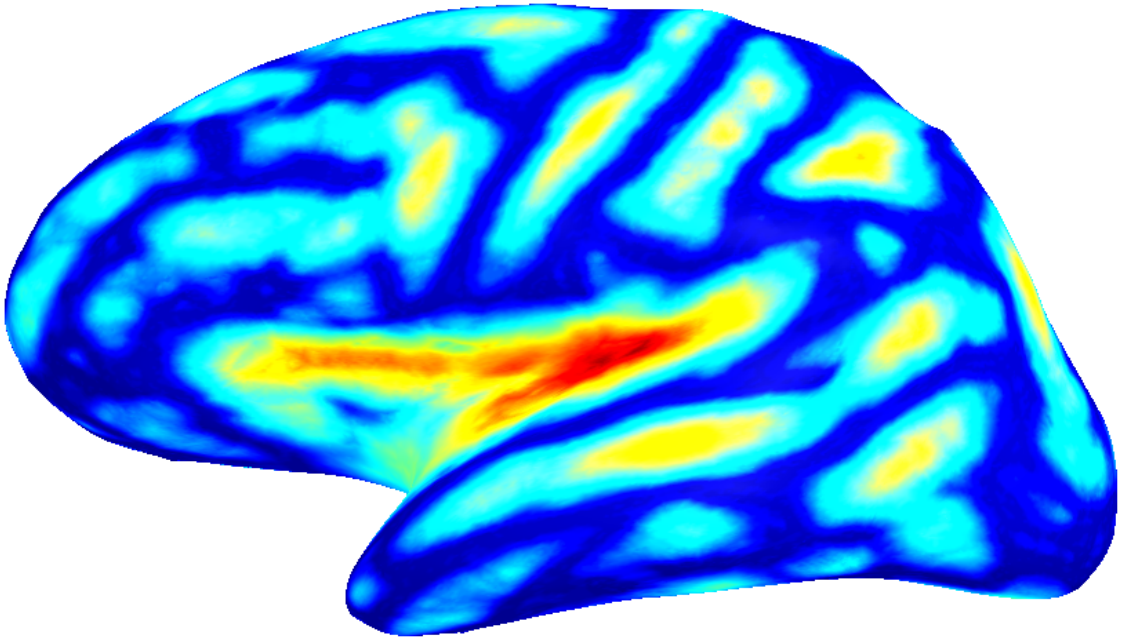
Travel depth (folds)



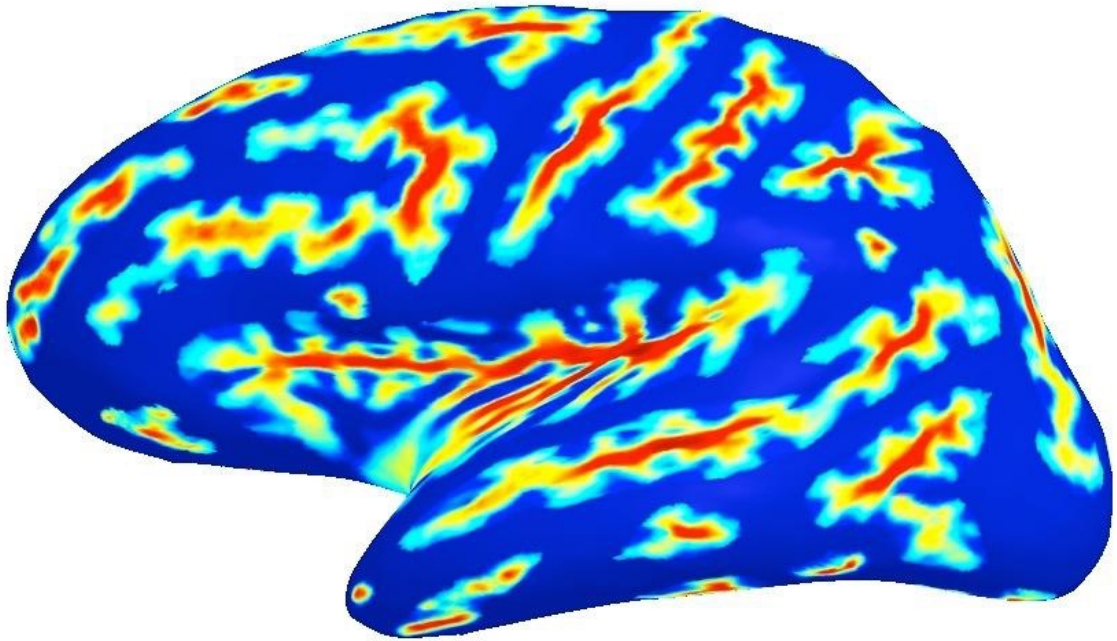
Mean curvature (inflated surface)



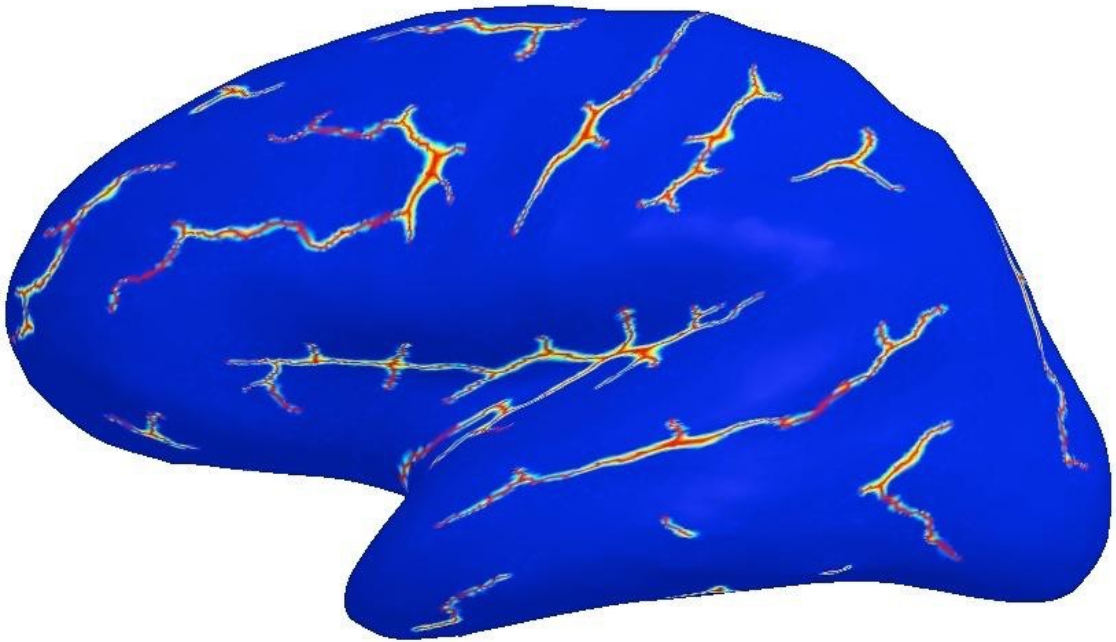
Travel depth (inflated surface)



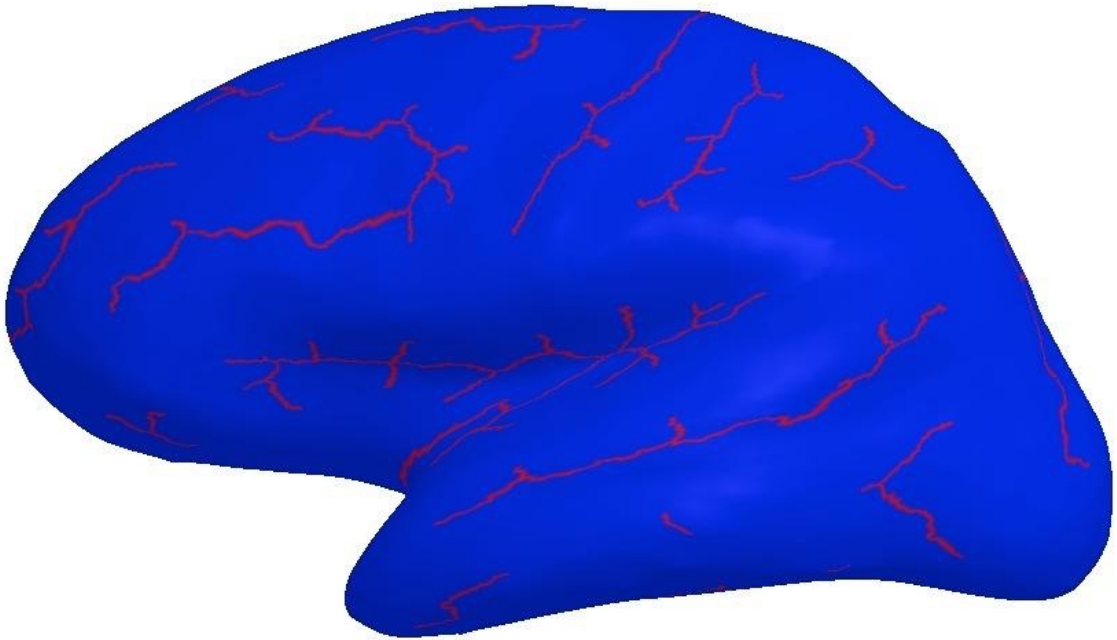
Fundus curves



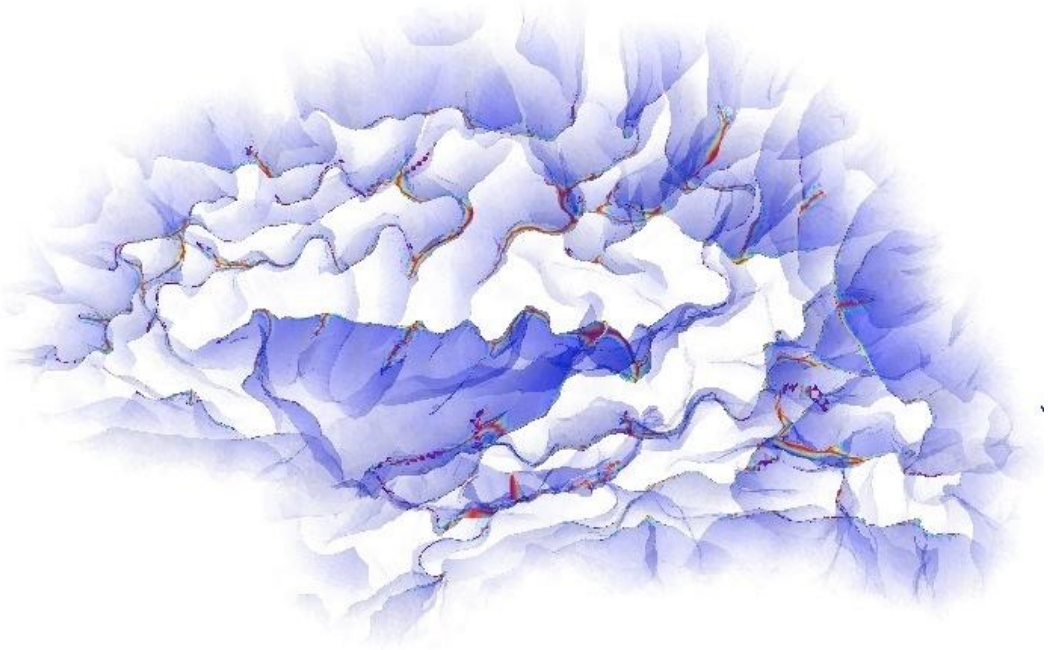
Fundus curves

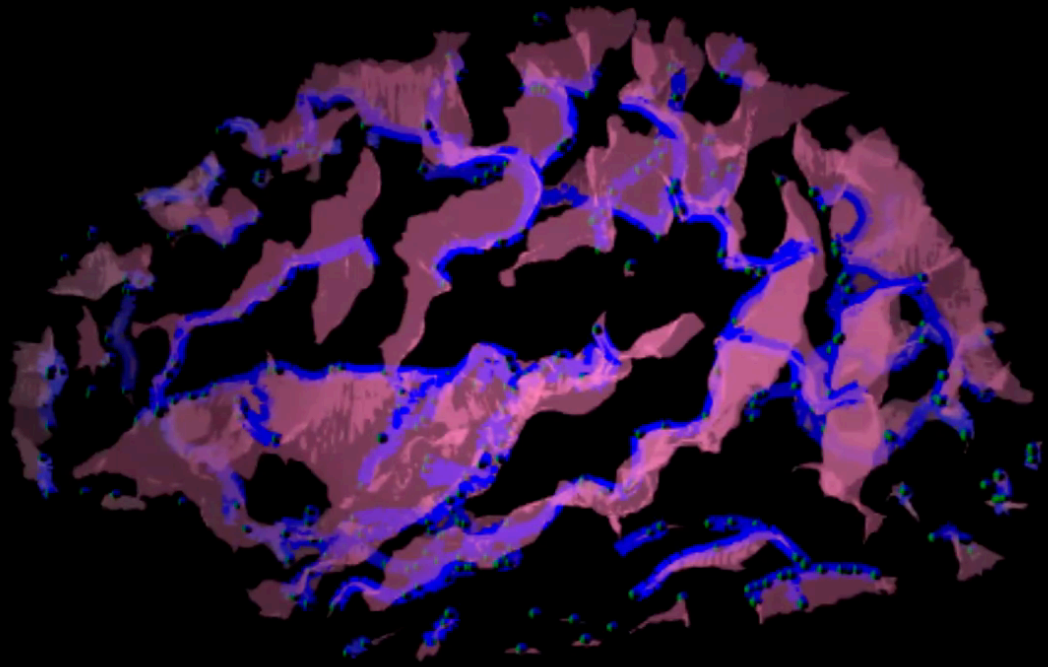


Fundus curves



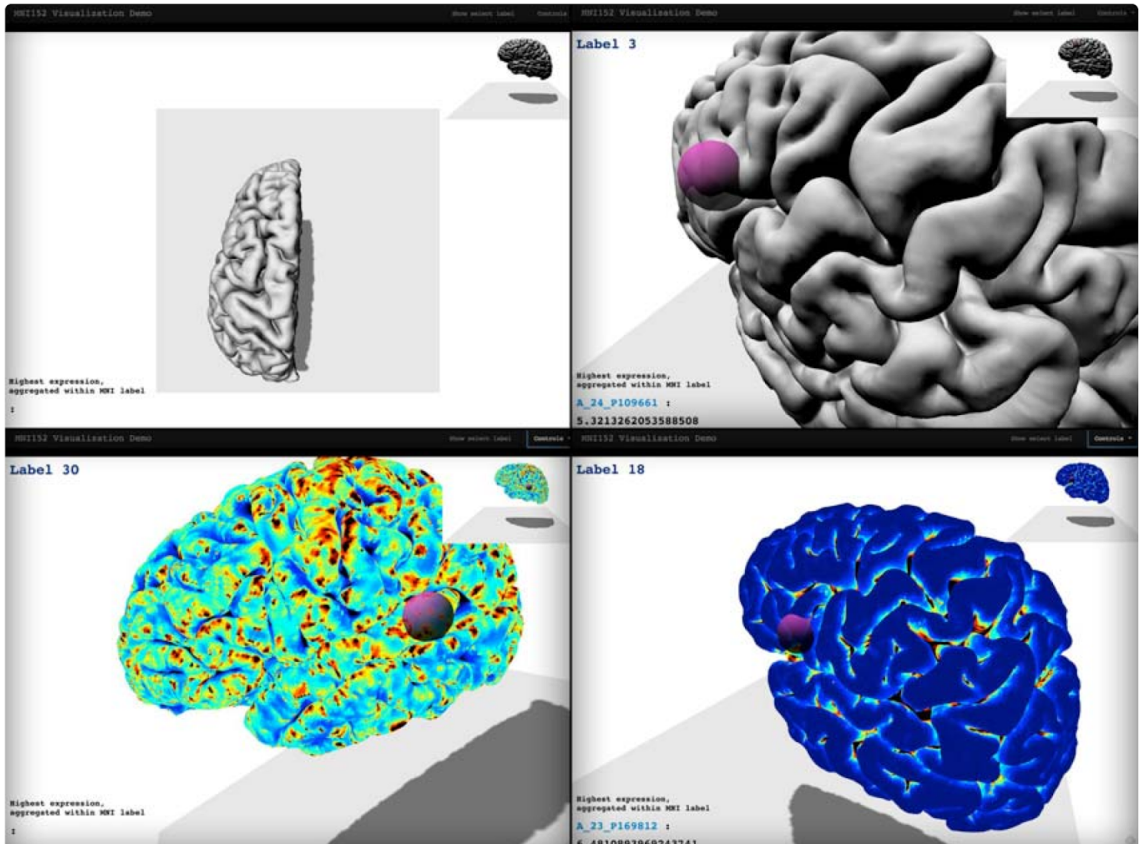
Folds + fundus curves





HBM 2013 Hackathon: Allen Brain genetics / imaging mashup

Much to our delight, we placed first with our entry!



Alzheimers Disease Big Data DREAM Challenge 1

Share Annotations Tools

Synapse ID: syn2290704
DOI: doi:10.7303/syn2290704

Wiki Files Tables beta Challenge Admin

Alzheimers Disease Big Data DREAM Challenge 1

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   1.2 DREAM9 Challenges Rules
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4. Data Description and Format
   4.1 Training
   4.2 Ancillary
   4.3 Test - ROS/MAP
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5. Questions and Scoring
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6b. Final scoreboards
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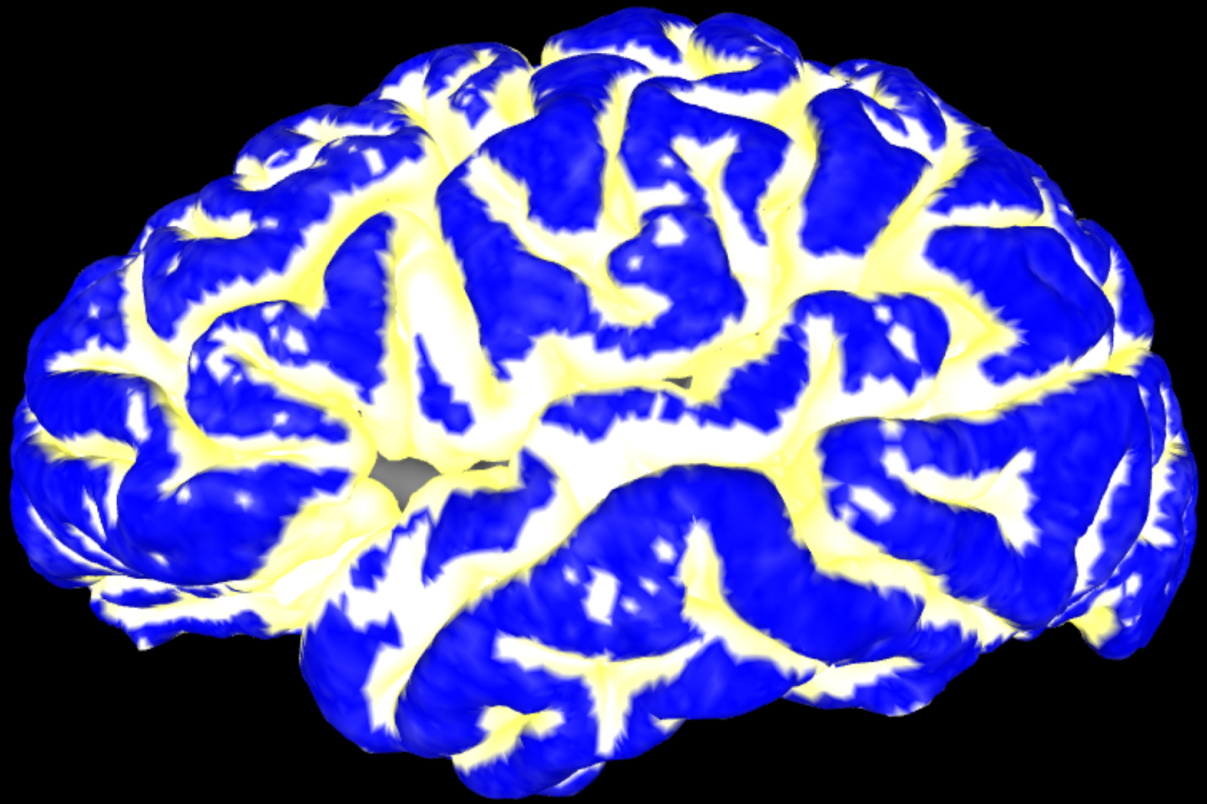
   6b.3 Q2 Final Scoreboard
   6b.4 Q3 Final Scoreboard

Alzheimer's Disease Big Data DREAM Challenge #1
Launched: June 2, 2014
Closed: October 17, midnight Pacific Time
See Description of Final Results

The goal of the Alzheimer's Disease Big Data DREAM Challenge #1 (AD#1) was to apply an open science approach to rapidly identify accurate predictive AD biomarkers that can be used by the scientific, industrial and regulatory communities to improve AD diagnosis and treatment. AD#1 will be the first in a series of AD Data Challenges to leverage genetics and brain imaging in combination with cognitive assessments, biomarkers and demographic information from cohorts ranging from cognitively normal to mild cognitively impaired to individuals with AD.

The Challenge considered the following questions:

HBM 2015 Hackathon:
Brain shape visualization



Mindboggle

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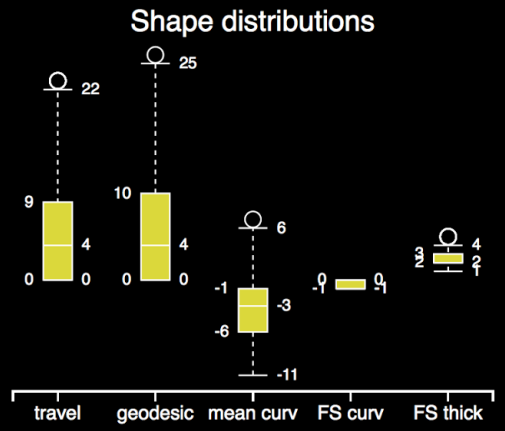
Mindboggle

Selected Label: 1015



Mindboggle

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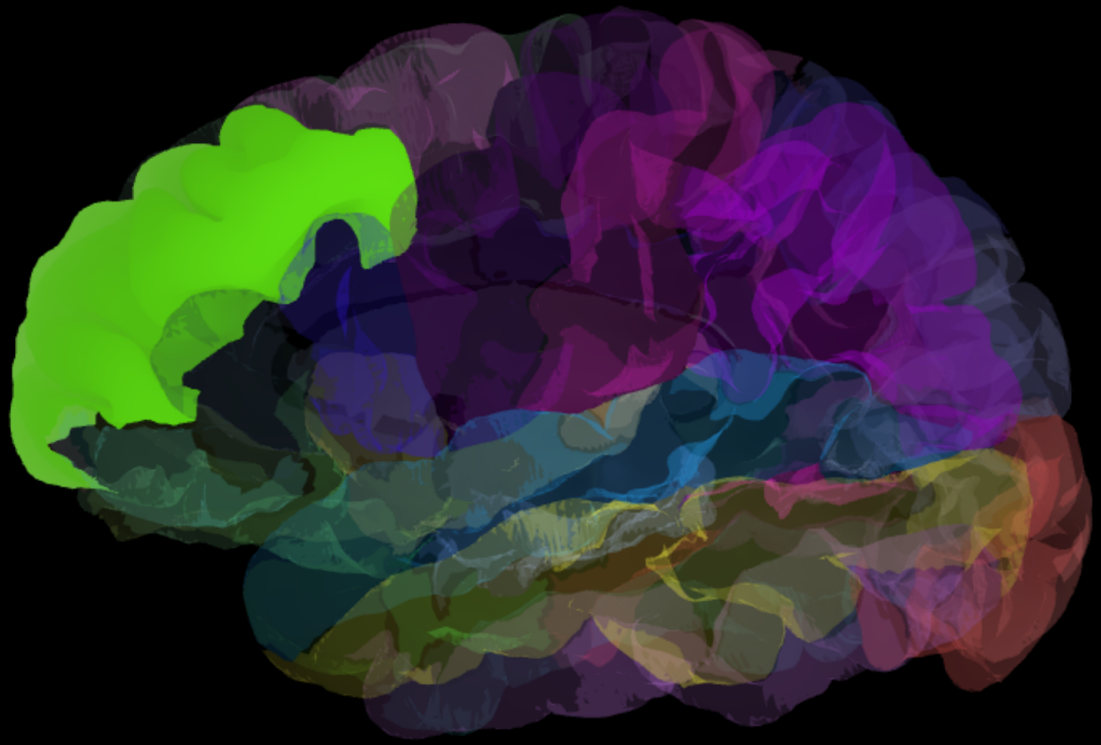
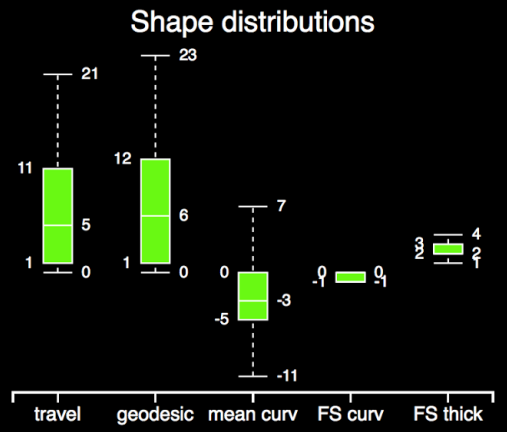
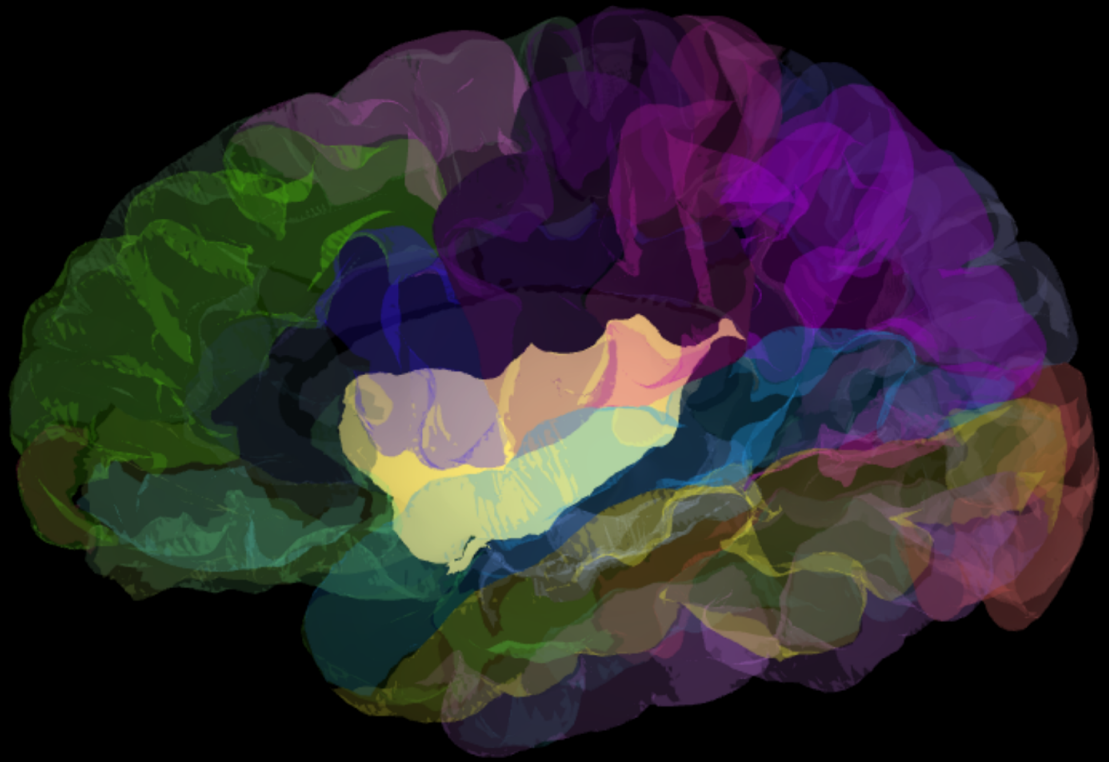
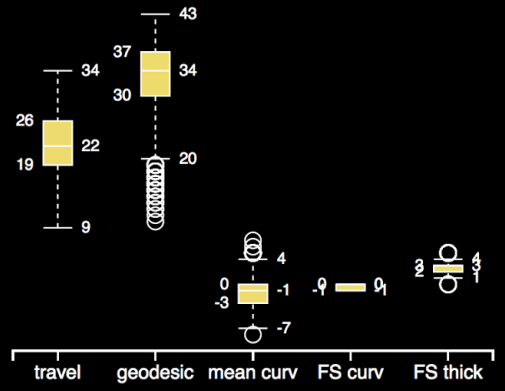
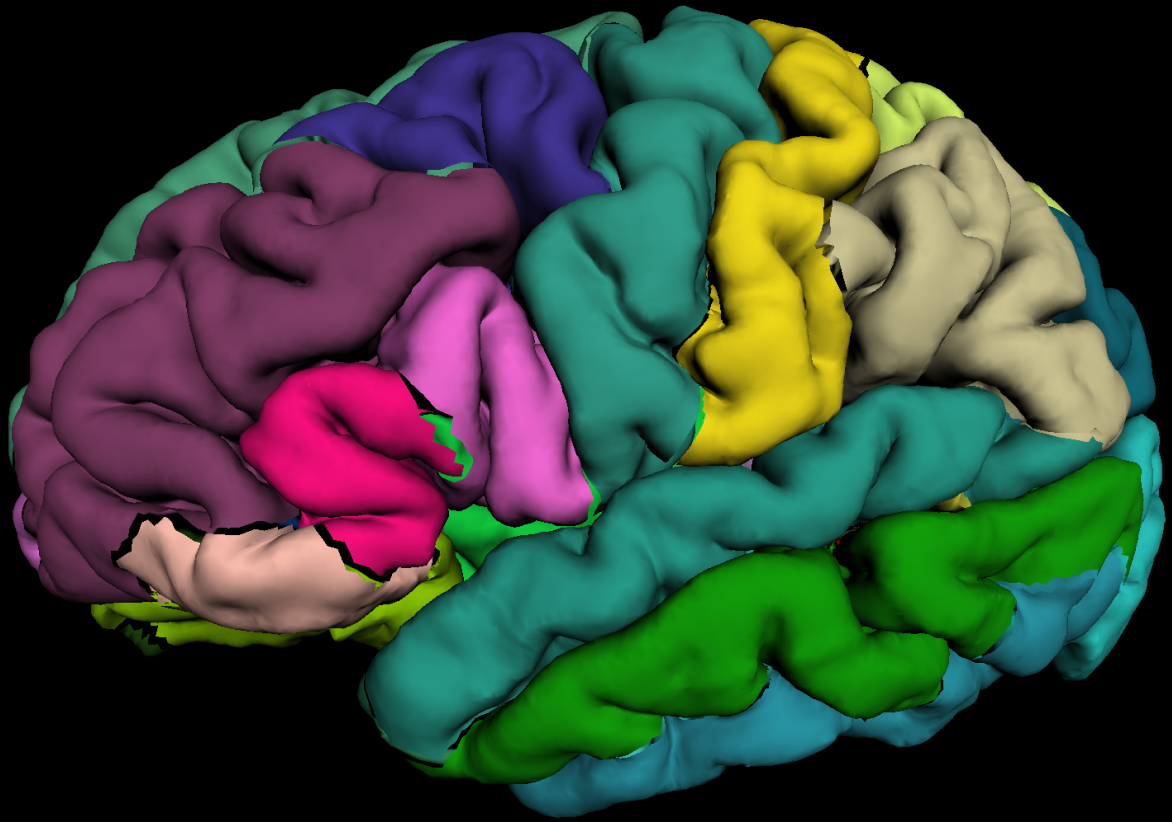




Mindboggle

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