

# LHAB Longitudinal Cerebellar Volume - Collaboration Project

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Overview of Scripts

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This document contains background information about the scripts that we will be modifying to process the LHAB data. Processing will include several steps of which the biggest ones including infratentorial cropping and longitudinal normalization.

Scripts will be uploaded to Github.

## **Pipeline:**

## **1 T1 Bias Field Correction**

### **1.1 Software needed**

- Advanced Normalization Tools (ANTs) Compile from source
- 2012 MICCAI Multi-Atlas Labeling Challenge Data (training set)
- FSL

### **1.2 Script for one subject**

`01_BiasFieldCorrection.sh`

## **2 Isolate the Cerebellum and Brainstem**

### **2.1 Software needed**

- Matlab
- SPM

- Spatially Unbiased Infra-tentorial Template (SUIT)  
SUIT is an SPM toolbox

## 2.2 Script for one subject

- Shell wrapper script. This script calls the Matlab job script.

`02_IsolateCerebellum.sh`

- Matlab job

`02_IsolateCerebellum.m`

## 3 Longitudinal Normalization

### 3.1 Software needed

- Advanced Normalization Tools (ANTs) Compile from source
- Spatially Unbiased Infra-tentorial Template (SUIT)  
SUIT is an SPM toolbox