#++ auto\_warp.py version: 0.03

# Output directory /home/prot/AnaRats/fMRI/R2/awpy/

#Script is running:

mkdir /home/prot/AnaRats/fMRI/R2/awpy/

mkdir: cannot create directory ‘/home/prot/AnaRats/fMRI/R2/awpy/’: File exists

cd /home/prot/AnaRats/fMRI/R2/awpy/

#Script is running (command trimmed):

3dcopy /home/prot/AnaRats/fMRI/R2/R2\_T2\_low\_stripped.aw.nii ./anat.nii

++ 3dcopy: AFNI version=AFNI\_16.2.06 (Jul 25 2016) [64-bit]

#Script is running (command trimmed):

3dUnifize -GM -input ./anat.nii -prefix ./anat.un.nii

++ 3dUnifize: AFNI version=AFNI\_16.2.06 (Jul 25 2016) [64-bit]

+ Pre-processing: ADV..UWG

++ Output dataset ./anat.un.nii

++ ===== Elapsed = 1.6 sec

#Script is running (command trimmed):

3dcopy /home/prot/AnaRats/fMRI/brain.nii ./base.nii

++ 3dcopy: AFNI version=AFNI\_16.2.06 (Jul 25 2016) [64-bit]

#++ Aligning /home/prot/AnaRats/fMRI/R2/awpy/base.nii data to /home/prot/AnaRats/fMRI/R2/awpy/anat.un.nii data

#Script is running (command trimmed):

@auto\_tlrc -base ./base.nii -input ./anat.un.nii -suffix .aff -no\_ss -no\_pre -init\_xform CENTER

Copying NIFTI volume to ./anat.un\_XYZ\_OYmeqfZ3JqF7n9LNC7gDAA

++ 3dcopy: AFNI version=AFNI\_16.2.06 (Jul 25 2016) [64-bit]

Performing center alignment with @Align\_Centers

++ 3dcopy: AFNI version=AFNI\_16.2.06 (Jul 25 2016) [64-bit]

++ 3drefit: AFNI version=AFNI\_16.2.06 (Jul 25 2016) [64-bit]

++ Authored by: RW Cox

++ Processing AFNI dataset ./anat.un\_XYZ\_OYmeqfZ3JqF7n9LNC7gDAA\_shft+orig

++ 3drefit processed 1 datasets

++ 3drename: AFNI version=AFNI\_16.2.06 (Jul 25 2016) [64-bit]

++ THD\_rename\_dataset\_files: rename anat.un\_XYZ\_OYmeqfZ3JqF7n9LNC7gDAA\_shft+orig.HEAD -> \_\_ats\_tmp\_\_anat.un\_XYZ\_OYmeqfZ3JqF7n9LNC7gDAA\_shft+orig.HEAD

++ THD\_rename\_dataset\_files: rename anat.un\_XYZ\_OYmeqfZ3JqF7n9LNC7gDAA\_shft+orig.BRIK -> \_\_ats\_tmp\_\_anat.un\_XYZ\_OYmeqfZ3JqF7n9LNC7gDAA\_shft+orig.BRIK

\*\* THD\_rename\_dataset\_files: old header anat.un\_XYZ\_OYmeqfZ3JqF7n9LNC7gDAA\_shft+acpc.HEAD doesn't exist!

\*\* THD\_rename\_dataset\_files: old header anat.un\_XYZ\_OYmeqfZ3JqF7n9LNC7gDAA\_shft+tlrc.HEAD doesn't exist!

++ 3dWarp: AFNI version=AFNI\_16.2.06 (Jul 25 2016) [64-bit]

++ Authored by: RW Cox

Center distance of 0.000000 mm

Padding ...

++ 3dZeropad: AFNI version=AFNI\_16.2.06 (Jul 25 2016) [64-bit]

++ output dataset: ./\_\_ats\_tmp\_\_ref\_base.nii\_40pad+orig.BRIK

Resampling ...

++ 3dcalc: AFNI version=AFNI\_16.2.06 (Jul 25 2016) [64-bit]

++ Authored by: A cast of thousands

++ Output dataset ././\_\_ats\_tmp\_\_resamp\_step+orig.BRIK

++ 3dcalc: AFNI version=AFNI\_16.2.06 (Jul 25 2016) [64-bit]

++ Authored by: A cast of thousands

++ Output dataset ././\_\_ats\_tmp\_\_resamp+orig.BRIK

Clipping -0.000100 5704.280100 ...

++ 3dcalc: AFNI version=AFNI\_16.2.06 (Jul 25 2016) [64-bit]

++ Authored by: A cast of thousands

++ Output dataset ./\_\_ats\_tmp\_\_\_rs\_pre.anat.un\_XYZ\_OYmeqfZ3JqF7n9LNC7gDAA+orig.BRIK

++ 3drefit: AFNI version=AFNI\_16.2.06 (Jul 25 2016) [64-bit]

++ Authored by: RW Cox

++ Processing AFNI dataset \_\_ats\_tmp\_\_\_rs\_pre.anat.un\_XYZ\_OYmeqfZ3JqF7n9LNC7gDAA+orig.HEAD

+ Didn't make any changes for dataset \_\_ats\_tmp\_\_\_rs\_pre.anat.un\_XYZ\_OYmeqfZ3JqF7n9LNC7gDAA+orig.HEAD !

++ 3drefit processed 1 datasets

++ 3drefit: AFNI version=AFNI\_16.2.06 (Jul 25 2016) [64-bit]

++ Authored by: RW Cox

++ Processing AFNI dataset \_\_ats\_tmp\_\_resamp\_NN+orig.HEAD

+ Didn't make any changes for dataset \_\_ats\_tmp\_\_resamp\_NN+orig.HEAD !

++ 3drefit processed 1 datasets

++ 3drefit: AFNI version=AFNI\_16.2.06 (Jul 25 2016) [64-bit]

++ Authored by: RW Cox

++ Processing AFNI dataset \_\_ats\_tmp\_\_resamp\_edge\_art+orig.HEAD

+ Didn't make any changes for dataset \_\_ats\_tmp\_\_resamp\_edge\_art+orig.HEAD !

++ 3drefit processed 1 datasets

Registration (linear final interpolation) ...

++ 3dWarpDrive: AFNI version=AFNI\_16.2.06 (Jul 25 2016) [64-bit]

++ Authored by: RW Cox

RMS[0] = 3038.31 2877 ITER = 4/137

3038.31

Warping has converged.

++ 3dcopy: AFNI version=AFNI\_16.2.06 (Jul 25 2016) [64-bit]

++ 3dWarp: AFNI version=AFNI\_16.2.06 (Jul 25 2016) [64-bit]

++ Authored by: RW Cox

Applying brain mask

++ 3dcalc: AFNI version=AFNI\_16.2.06 (Jul 25 2016) [64-bit]

++ Authored by: A cast of thousands

++ Output dataset ././\_\_ats\_tmp\_\_reg\_braintlrcstep+orig.BRIK

++ 3dWarp: AFNI version=AFNI\_16.2.06 (Jul 25 2016) [64-bit]

++ Authored by: RW Cox

++ 3drename: AFNI version=AFNI\_16.2.06 (Jul 25 2016) [64-bit]

++ THD\_rename\_dataset\_files: rename \_\_ats\_tmp\_\_\_pad40\_pre.anat.un\_XYZ\_OYmeqfZ3JqF7n9LNC7gDAA.aff+orig.HEAD -> \_\_ats\_tmp\_\_\_pad40\_pre.anat.un\_XYZ\_OYmeqfZ3JqF7n9LNC7gDAA.aff.skl+orig.HEAD

++ THD\_rename\_dataset\_files: rename \_\_ats\_tmp\_\_\_pad40\_pre.anat.un\_XYZ\_OYmeqfZ3JqF7n9LNC7gDAA.aff+orig.BRIK -> \_\_ats\_tmp\_\_\_pad40\_pre.anat.un\_XYZ\_OYmeqfZ3JqF7n9LNC7gDAA.aff.skl+orig.BRIK

++ 3dcalc: AFNI version=AFNI\_16.2.06 (Jul 25 2016) [64-bit]

++ Authored by: A cast of thousands

++ Output dataset ././\_\_ats\_tmp\_\_\_pad40\_pre.anat.un\_XYZ\_OYmeqfZ3JqF7n9LNC7gDAA.aff+orig.BRIK

Unpadding ...

++ 3dZeropad: AFNI version=AFNI\_16.2.06 (Jul 25 2016) [64-bit]

++ output dataset: ./\_\_ats\_tmp\_\_\_upad40\_pre.anat.un\_XYZ\_OYmeqfZ3JqF7n9LNC7gDAA.aff+orig.BRIK

++ 3drefit: AFNI version=AFNI\_16.2.06 (Jul 25 2016) [64-bit]

++ Authored by: RW Cox

++ Processing AFNI dataset \_\_ats\_tmp\_\_\_upad40\_pre.anat.un\_XYZ\_OYmeqfZ3JqF7n9LNC7gDAA.aff+orig

++ 3drefit processed 1 datasets

Changing view of transformed anatomy

++ 3drefit: AFNI version=AFNI\_16.2.06 (Jul 25 2016) [64-bit]

++ Authored by: RW Cox

++ Processing AFNI dataset \_\_ats\_tmp\_\_\_upad40\_pre.anat.un\_XYZ\_OYmeqfZ3JqF7n9LNC7gDAA.aff+orig.HEAD

+ Didn't make any changes for dataset \_\_ats\_tmp\_\_\_upad40\_pre.anat.un\_XYZ\_OYmeqfZ3JqF7n9LNC7gDAA.aff+orig.HEAD !

++ 3drefit processed 1 datasets

++ 3dAFNItoNIFTI: AFNI version=AFNI\_16.2.06 (Jul 25 2016) [64-bit]

Cleanup ...

++ 3drename: AFNI version=AFNI\_16.2.06 (Jul 25 2016) [64-bit]

++ Warning: ignoring +orig on new\_prefix.

++ THD\_rename\_dataset\_files: rename \_\_ats\_tmp\_\_\_rs\_pre.anat.un\_XYZ\_OYmeqfZ3JqF7n9LNC7gDAA+orig.HEAD -> \_\_ats\_tmp\_\_\_rs\_pre.anat.un+orig.HEAD

++ THD\_rename\_dataset\_files: rename \_\_ats\_tmp\_\_\_rs\_pre.anat.un\_XYZ\_OYmeqfZ3JqF7n9LNC7gDAA+orig.BRIK -> \_\_ats\_tmp\_\_\_rs\_pre.anat.un+orig.BRIK

++ 3drename: AFNI version=AFNI\_16.2.06 (Jul 25 2016) [64-bit]

++ Warning: ignoring +orig on new\_prefix.

++ THD\_rename\_dataset\_files: rename pre.anat.un\_XYZ\_OYmeqfZ3JqF7n9LNC7gDAA+orig.HEAD -> pre.anat.un+orig.HEAD

++ THD\_rename\_dataset\_files: rename pre.anat.un\_XYZ\_OYmeqfZ3JqF7n9LNC7gDAA+orig.BRIK -> pre.anat.un+orig.BRIK

#Script is running:

3dAttribute DELTA /home/prot/AnaRats/fMRI/R2/awpy/anat.un.aff.nii

#Script is running:

3dAttribute DELTA /home/prot/AnaRats/fMRI/R2/awpy/base.nii

0.125000 0.125000

#Script is running (command trimmed):

3dinfo -same\_grid ./anat.un.aff.nii ./base.nii

#++ Aligning /home/prot/AnaRats/fMRI/R2/awpy/base.nii data to /home/prot/AnaRats/fMRI/R2/awpy/anat.un.aff.nii data

#Script is running (command trimmed):

3dQwarp -prefix ./anat.un.aff.qw.nii -blur -3 -3 -workhard:0:1 -base ./base.nii -source ./anat.un.aff.nii

++ OpenMP thread count = 15

++ 3dQwarp: AFNI version=AFNI\_16.2.06 (Jul 25 2016) [64-bit]

++ Authored by: Zhark the (Hermite) Cubically Warped

++ Dataset zero-pad: xbot=8 xtop=9 ybot=0 ytop=4 zbot=10 ztop=10 voxels

++ Weightizing the base image

++ +++++++++++ Begin warp optimization: base=./base.nii source=./anat.un.aff.nii

++ AFNI warpomatic: 153 x 106 x 108 volume ; autobbox = 10..143 5..99 4..103 [clock= 1s 286ms]

lev=0 0..152 0..105 0..107: [first cost=-1.23440] ... done [cost:-1.23440==>-1.25036]

lev=1 patch=115x81x81 [clock= 53s 421ms]........:[cost=-1.25775]:........ done [cost:-1.25036==>-1.25872 ; 16 patches optimized, 0 skipped]

lev=2 patch=87x61x61 [clock= 1m 14s 684ms].................. done [cost:-1.25872==>-1.28677 ; 18 patches optimized, 0 skipped]

lev=3 patch=65x45x45 [clock= 1m 28s 650ms]............... done [cost:-1.28677==>-1.34496 ; 60 patches optimized, 4 skipped]

lev=4 patch=49x33x35 [clock= 1m 47s 618ms]............ done [cost:-1.34496==>-1.38510 ; 129 patches optimized, 21 skipped]

lev=5 patch=37x25x25 [clock= 2m 7s 13ms]................ done [cost:-1.38510==>-1.44499 ; 353 patches optimized, 95 skipped]

lev=6 patch=25x25x25 [clock= 2m 31s 209ms]......................... done [cost:-1.44499==>-1.42307 ; 538 patches optimized, 166 skipped]

++ ========== total number of parameters 'optimized' = 27033

++ Output dataset ./anat.un.aff.qw.nii

++ Output dataset ./anat.un.aff.qw\_WARP.nii

++ ===== clock time = 2m 58s 672ms

#++ Applying warps to /home/prot/AnaRats/fMRI/R2/R2\_T2\_low\_stripped.aw.nii

#Script is running (command trimmed):

3dNwarpApply -nwarp "./anat.un.aff.qw\_WARP.nii anat.un.aff.Xat.1D" -master ./base.nii -source /home/prot/AnaRats/fMRI/R2/R2\_T2\_low\_stripped.aw.nii -prefix ./R2\_T2\_low\_stripped.aw.aw.nii

++ 3dNwarpApply: AFNI version=AFNI\_16.2.06 (Jul 25 2016) [64-bit]

++ Authored by: Zhark the Warped

++ -master dataset is './base.nii'

++ opened source dataset '/home/prot/AnaRats/fMRI/R2/R2\_T2\_low\_stripped.aw.nii'

++ Processing -nwarp

++ Warping: .Z

++ Output dataset ./R2\_T2\_low\_stripped.aw.aw.nii

++ total Elapsed time = 0.6 sec

#++ Saving history

#Script is running (command trimmed):

3dNotes -h "auto\_warp.py -base ../brain.nii -input R2\_T2\_low\_stripped.aw.nii" \

./R2\_T2\_low\_stripped.aw.aw.nii