

```
1, flirt -in /mnt/d/Downloads/neurodatadesign/ndmg_outputs/anat/preproc/t1w_brain_nores.nii.gz -ref
/usr/local/fsl/data/standard/MNI152_T1_2mm_brain.nii.gz -omat /mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_m/xfm_t1w2mni_init.mat -dof 12
-interp spline -cost mutualinfo -searchrx -180 180 -searchry -180 180 -searchrz -180 180
```

```
fnirt --in=/mnt/d/Downloads/neurodatadesign/ndmg_outputs/anat/preproc/t1w_brain_nores.nii.gz --
ref=/usr/local/fsl/data/standard/MNI152_T1_2mm_brain.nii.gz --aff=/mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_m/xfm_t1w2mni_init.mat --
iout=/mnt/d/Downloads/neurodatadesign/ndmg_outputs/anat/preproc/t1w_aligned_mni.nii.gz --
cout=/mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_a/warp_t12mni.nii.gz --warpres=8,8,8 --
refmask=/usr/local/fsl/data/standard/MNI152_T1_2mm_brain_mask.nii.gz --applyrefmask=1 --config=/usr/local/fsl/etc/flirtsch/T1_2_MNI152_2mm.cnf
```

```
invwarp --warp=/mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_a/warp_t12mni.nii.gz --
out=/mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_a/mni2t1w_warp.nii.gz --
ref=/mnt/d/Downloads/neurodatadesign/ndmg_outputs/anat/preproc/t1w_brain_nores.nii.gz
```

```
convert_xfm -omat /mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_m/xfm_mni2t1w_init.mat -inverse
/mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_m/xfm_t1w2mni_init.mat
```

```
2, flirt -in /mnt/d/Downloads/neurodatadesign/ndmg_outputs/dwi/preproc/nodif_B0.nii.gz -ref
/mnt/d/Downloads/neurodatadesign/ndmg_outputs/anat/preproc/t1w_brain_nores.nii.gz -omat
/mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_m/t1w2dwi_xfm.mat -dof 6 -interp spline -cost mutualinfo -searchrx -180 180 -searchry -180 180 -
searchrz -180 180
```

```
convert_xfm -omat /mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_m/dwi2t1w_xfm.mat -inverse
/mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_m/t1w2dwi_xfm.mat
```

```
3, flirt -in /mnt/d/Downloads/neurodatadesign/ndmg_outputs/dwi/preproc/nodif_B0.nii.gz -ref
/mnt/d/Downloads/neurodatadesign/ndmg_outputs/anat/preproc/t1w_brain_nores.nii.gz -omat
/mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_m/dwi2t1w_bbr_xfm.mat -dof 7 -bins 256 -interp spline -cost bbr -searchrx -180 180 -searchry -180
180 -searchrz -180 180 -schedule ${FSLDIR}/etc/flirtsch/bbr.sch -wmseg /mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_a/t1w_wm_edge.nii.gz -init
/mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_m/dwi2t1w_xfm.mat
```

```
0.675127 1.000014 0.108914 0.008983 0.000000 -0.108616 0.999667 -0.028990 0.000000 -0.012066 0.027848 1.005510 0.000000 -79.469223 -25.903574
145.534662 1.000000
```

```
4, flirt -in /mnt/d/Downloads/neurodatadesign/ndmg_outputs/anat/preproc/t1w_brain_nores.nii.gz -ref
/mnt/d/Downloads/neurodatadesign/ndmg_outputs/dwi/preproc/nodif_B0.nii.gz -omat
/mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_m/t1wtissue2dwi_xfm.mat -out
/mnt/d/Downloads/neurodatadesign/ndmg_outputs/anat/registered/t1w_in_dwi.nii.gz -dof 7 -interp spline -cost mutualinfo -searchrx -180 180 -searchry -180 180
-searchrz -180 180 -init /mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_m/t1w2dwi_bbr_xfm.mat
```

```
5, flirt -in /usr/local/fsl/data/atlasses/HarvardOxford/HarvardOxford-sub-prob-2mm.nii.gz -ref /usr/local/fsl/data/standard/MNI152_T1_2mm_brain.nii.gz -omat
/mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_m/roi_2_mni.mat -dof 6 -interp spline -cost mutualinfo -searchrx -180 180 -searchry -180 180 -
searchrz -180 180
```

```
6, flirt -in /home/jialinkang/.ndmg/ndmg_atlasses/atlasses/mask/HarvardOxford-thr25_space-MNI152Nlin6_variant-lateral-ventricles_res-2x2x2_desc-
brainmask.nii.gz -ref /usr/local/fsl/data/standard/MNI152_T1_2mm_brain.nii.gz -out
/mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_a/vent_mask_mni.nii.gz -init
/mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_m/roi_2_mni.mat -interp trilinear -dof 6 -applyxfm
```

```
applywarp --ref=/mnt/d/Downloads/neurodatadesign/ndmg_outputs/anat/preproc/t1w_brain_nores.nii.gz --
in=/mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_a/vent_mask_mni.nii.gz --
out=/mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_a/vent_mask_t1w.nii.gz --
warp=/mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_a/mni2t1w_warp.nii.gz --interp=nn --super --superlevel=a
```

```
applywarp --ref=/mnt/d/Downloads/neurodatadesign/ndmg_outputs/anat/preproc/t1w_brain_nores.nii.gz --
in=/home/jialinkang/.ndmg/ndmg_atlasses/atlasses/mask/CorpusCallosum_res_2mm.nii.gz --
out=/mnt/d/Downloads/neurodatadesign/ndmg_outputs/anat/registered/t1w_corpuscallosum.nii.gz --
warp=/mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_a/mni2t1w_warp.nii.gz --interp=nn --super --superlevel=a
```

```
7, flirt -in /mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_a/vent_mask_t1w.nii.gz -ref
/mnt/d/Downloads/neurodatadesign/ndmg_outputs/dwi/preproc/nodif_B0.nii.gz -out
/mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_a/t1w_vent_mask_dwi.nii.gz -init
/mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_m/t1wtissue2dwi_xfm.mat -interp trilinear -dof 6 -applyxfm
```

```
8, flirt -in /mnt/d/Downloads/neurodatadesign/ndmg_outputs/anat/registered/t1w_corpuscallosum.nii.gz -ref
/mnt/d/Downloads/neurodatadesign/ndmg_outputs/dwi/preproc/nodif_B0.nii.gz -out
/mnt/d/Downloads/neurodatadesign/ndmg_outputs/anat/registered/t1w_corpuscallosum_dwi.nii.gz -init
/mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_m/t1wtissue2dwi_xfm.mat -interp trilinear -dof 6 -applyxfm
```

```
9, flirt -in /mnt/d/Downloads/neurodatadesign/ndmg_outputs/anat/preproc/t1w_seg_pve_0_nores.nii.gz -ref
/mnt/d/Downloads/neurodatadesign/ndmg_outputs/dwi/preproc/nodif_B0.nii.gz -out
```

```
/mnt/d/Downloads/neurodatadesign/ndmg_outputs/anat/registered/t1w_csf_mask_dwi.nii.gz -init  
/mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_m/t1wtissue2dwi_xfm.mat -interp trilinear -dof 6 -applyxfm
```

```
10, flirt -in /mnt/d/Downloads/neurodatadesign/ndmg_outputs/anat/preproc/t1w_seg_pve_1_nores.nii.gz -ref  
/mnt/d/Downloads/neurodatadesign/ndmg_outputs/dwi/preproc/nodif_B0.nii.gz -out  
/mnt/d/Downloads/neurodatadesign/ndmg_outputs/anat/registered/t1w_gm_in_dwi.nii.gz -init  
/mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_m/t1wtissue2dwi_xfm.mat -interp trilinear -dof 6 -applyxfm
```

```
11, flirt -in /mnt/d/Downloads/neurodatadesign/ndmg_outputs/anat/preproc/t1w_seg_pve_2_nores.nii.gz -ref  
/mnt/d/Downloads/neurodatadesign/ndmg_outputs/dwi/preproc/nodif_B0.nii.gz -out  
/mnt/d/Downloads/neurodatadesign/ndmg_outputs/anat/registered/t1w_wm_in_dwi.nii.gz -init  
/mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_m/t1wtissue2dwi_xfm.mat -interp trilinear -dof 6 -applyxfm
```

```
12, flirt -in /mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_a/desikan_space-MNI152Nlin6_res-2x2x2_reor_RAS_nores_aligned_atlas_skull.nii.gz -ref  
/mnt/d/Downloads/neurodatadesign/ndmg_outputs/dwi/preproc/nodif_B0.nii.gz -out  
/mnt/d/Downloads/neurodatadesign/ndmg_outputs/anat/registered/desikan_space-MNI152Nlin6_res-2x2x2_reor_RAS_nores_aligned_atlas.nii.gz -dof 6 -bins 256  
-interp nearestneighbour -cost mutualinfo -searchrx -180 180 -searchry -180 180 -searchrz -180 180 -init  
/mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_m/t1wtissue2dwi_xfm.mat
```

```
applywarp --ref=/mnt/d/Downloads/neurodatadesign/ndmg_outputs/anat/preproc/t1w_brain_nores.nii.gz --  
in=/mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_a/desikan_space-MNI152Nlin6_res-2x2x2_reor_RAS_nores_aligned_atlas_t1w_mni.nii.gz --  
out=/mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_a/desikan_space-MNI152Nlin6_res-2x2x2_reor_RAS_nores_aligned_atlas_skull.nii.gz --  
warp=/mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_a/mni2t1w_warp.nii.gz --interp=nn --super --superlevel=a
```

```
13, flirt -in /mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_a/desikan_space-MNI152Nlin6_res-2x2x2_reor_RAS_nores_aligned_atlas_skull.nii.gz -ref  
/mnt/d/Downloads/neurodatadesign/ndmg_outputs/dwi/preproc/nodif_B0.nii.gz -out  
/mnt/d/Downloads/neurodatadesign/ndmg_outputs/anat/registered/desikan_space-MNI152Nlin6_res-2x2x2_reor_RAS_nores_aligned_atlas.nii.gz -dof 6 -bins 256  
-interp nearestneighbour -cost mutualinfo -searchrx -180 180 -searchry -180 180 -searchrz -180 180 -init  
/mnt/d/Downloads/neurodatadesign/ndmg_outputs/tmp/reg_m/t1wtissue2dwi_xfm.mat
```