In [3]:
```python
# exclude participant if < 4min of uncensored data
# and create covariates for mean flamewise-displacement

# Ikko Kimura, Osaka University Hospital, 2021/8/20
# Ikko Kimura, Osaka University Hospital, 2021/8/24 added to output the number of
import pandas as pd
from matplotlib import pyplot as plt
import numpy as np
WD="/project/amano-g/kimura/PDRegistry/"

#f=open('subj_list_all_2.txt','r')
#subj_list=f.read()
#f.close()
subj_list=np.loadtxt("subj_list_all_2.txt",dtype="str")
#print(data)

flag=np.zeros(len(subj_list))
mFD=np.zeros(len(subj_list))
num_unc=np.zeros(len(subj_list))
for i in range(len(subj_list)):
    #subj="093"
    subj=subj_list[i]
    #print(subj)
    if int(subj)<100:
        fname=WD+"output/fmriprep/sub-0"+subj+"/func/sub-0"+subj+"_task-rest_desc
    else:
        fname=WD+"output/fmriprep/sub-"+subj+"/func/sub-"+subj+"_task-rest_desc-c
    nuisance=pd.read_table(fname)
    nuisance=nuisance[4::]
    df=nuisance[(nuisance["framewise_displacement"]>0.5)].shape
    mFD=np.mean(nuisance["framewise_displacement"])
    max_mFD=np.max(nuisance["framewise_displacement"])

    if mFD>0.2:
        print("subj-"+subj+" was flagged because of high mean FD")
        flag[i]=1
    if max_mFD>5:
        print("subj-"+subj+" was flagged because of high max FD")
        flag[i]=1
    if df[0] >47:
        print("subj-"+subj+" was flagged because of high rate of suprathreshold F
        flag[i]=1
```

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subj-93 was flagged because of high mean FD
subj-94 was flagged because of high mean FD
subj-95 was flagged because of high mean FD
subj-104 was flagged because of high mean FD
subj-107 was flagged because of high mean FD
subj-113 was flagged because of high mean FD
subj-119 was flagged because of high mean FD
subj-119 was flagged because of high rate of suprathreshold FD
subj-146 was flagged because of high mean FD
subj-151 was flagged because of high mean FD
subj-160 was flagged because of high mean FD
subj-164 was flagged because of high mean FD
subj-164 was flagged because of high max FD
subj-167 was flagged because of high mean FD
subj-174 was flagged because of high mean FD
subj-174 was flagged because of high rate of suprathreshold FD
```

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subj-185 was flagged because of high mean FD
subj-186 was flagged because of high mean FD
subj-186 was flagged because of high max FD
subj-186 was flagged because of high rate of suprathreshold FD
subj-222 was flagged because of high mean FD
subj-244 was flagged because of high mean FD
subj-250 was flagged because of high mean FD
subj-277 was flagged because of high mean FD
subj-292 was flagged because of high mean FD
subj-306 was flagged because of high mean FD
subj-317 was flagged because of high mean FD
subj-317 was flagged because of high rate of suprathreshold FD
subj-318 was flagged because of high mean FD
subj-318 was flagged because of high rate of suprathreshold FD
subj-321 was flagged because of high mean FD
subj-337 was flagged because of high mean FD
subj-341 was flagged because of high mean FD
subj-341 was flagged because of high rate of suprathreshold FD
subj-345 was flagged because of high mean FD
subj-345 was flagged because of high rate of suprathreshold FD
subj-349 was flagged because of high mean FD
subj-350 was flagged because of high mean FD
subj-353 was flagged because of high mean FD
subj-353 was flagged because of high rate of suprathreshold FD
subj-406 was flagged because of high mean FD
subj-411 was flagged because of high mean FD
subj-444 was flagged because of high mean FD
subj-444 was flagged because of high max FD
subj-444 was flagged because of high rate of suprathreshold FD
subj-449 was flagged because of high mean FD
subj-449 was flagged because of high rate of suprathreshold FD
subj-480 was flagged because of high mean FD
subj-480 was flagged because of high rate of suprathreshold FD
subj-488 was flagged because of high mean FD
subj-493 was flagged because of high mean FD
subj-534 was flagged because of high mean FD
subj-597 was flagged because of high mean FD
subj-607 was flagged because of high mean FD
subj-627 was flagged because of high mean FD
subj-627 was flagged because of high rate of suprathreshold FD
subj-661 was flagged because of high mean FD
```

In [7]:
```python
#np.savetxt("flag_subj.txt",subj_list)
np.savetxt("flag_flag.txt",flag)
np.sum(flag)
```

Out[7]: 42.0

In [ ]: