Tutorial: calculate the cross coefficient to determine the .tif quality

1. Open calCorr_everyFrame.m in Matlab
2. Change parameters:

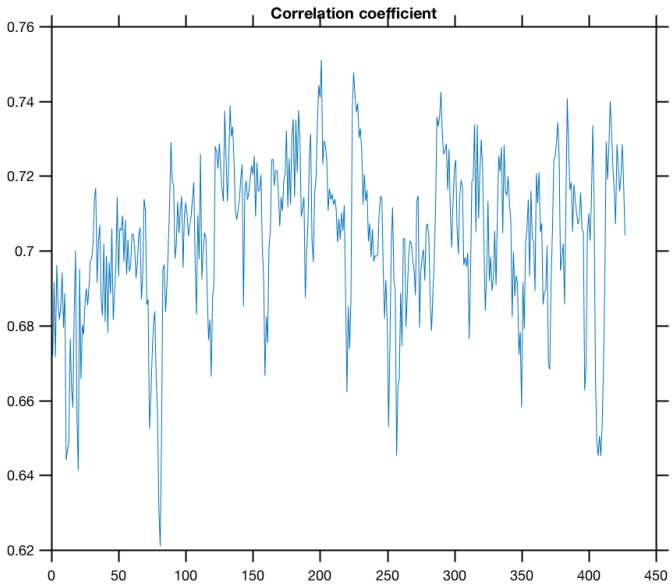
```
refFrame='/Users/phoenix/Documents/Kwanlab/learning/746/test/refFrame0.tif';

%% load directory
data_dir = '/Users/phoenix/Documents/Kwanlab/learning/746/test/';
image_subdir = 'raw';
cd(data_dir);
```

refFrame: path of the reference frame you used to calculate the cross correlation. (I use the average projection acquired by ImageJ, since we use this refframe to do the motion correction)

data_dir: the path of the directory where you keep the data

image_subdir: the directory which contains the .tif files which you want to calculate the cross correlation (this directory should be under the data_dir path)

3. Run (the .m file saves the coefficient vector in coefficient subdirectory.)
   Here is a test example (only 10 .tifs, ~400 frames were calculated)



#note: the cross-correlation coefficient is between 0 – 1. I am not quite sure what value indicate the frame is too bad to be motion corrected. Yet this test dataset seems to be motion corrected successfully, thus I assume coefficient > 0.62 would be fine.