

# Weekly Summary

- Higgs->invisible ( Yuhang )
  - Arrange the code structure ( partly refer that of Higgs2zz )
- Higgs-> ZZ ( Lingteng )
  - Applying the scale factor
- CMOS Pixel Sensor data analysis ( Ryuta )
  - Trying the decode process & asking the data location

# Ryuta

-- Try to decode the data taken @ DESY



have found that the data format is not identical as the past & need some setup on the IHEP server for the EUtelescope part.

-- Preparation of documents for the PIFI application

-- Preparation for the talk @ 2018 Autumn JPS

-- Introduction page of the CEPC on the X-Team

# Yuhang

Submit.sh : Higgs->invi.

```
31
32 case $option in
33   0.1.1) echo "Running on signal and background samples..."
34         if [ ! -d "steer" ]; then
35             mkdir steer
36         fi
37         if [ ! -d "splitted" ]; then
38             mkdir splitted
39         fi
40         rm job/job.out -rf
41         mkdir job/job.out
42         rm job/job.err -rf
43         mkdir job/job.err
44         cd job
45         bash run_sample
46     ;;
47
48   0.1.2) echo "Synthetizing seperated ROOT files..."
49         if [ ! -d "presel" ]; then
50             mkdir presel
51         fi
52         cd job
53         ./hadd.sh
54     ;;
55
56   0.1.3) echo "Drawing distributions of cut variables and calculate ratios of background over
57         if [ ! -d "figs" ]; then
58             mkdir figs
59         fi
60         if [ ! -d "logfiles" ]; then
61             mkdir logfiles
62         fi
63         cd job
64         hep_sub -g physics cut_variable_job -e job.err -o job.out
65     ;;
```

Submit.sh : Higgs->ZZ

```
9 # -----
10 # 0.1 Signal
11 # -----
12
13 0.1) echo "Running on signal sample..."
14     ;;
15
16 0.1.1) echo "Split signal sample with each group 0.5G..."
17     mkdir -p ./run/1lh2zz/samples
18     ./python/get_samples.py ${signal_slcio_dir} ./run/1lh2zz/samples/E240_P1lh_zz.txt 0.5G
19     ;;
20
21 0.1.2) echo "Generate XML input files for Marlin job..."
22     mkdir -p ./run/1lh2zz/steers
23     mkdir -p ./run/1lh2zz/steers/test
24     mkdir -p ./run/1lh2zz/ana
25     ./python/gen_steerfiles.py ./table/template_jobfile.xml ./run/1lh2zz/samples ./run/1lh2zz/steers ./
26     ;;
27
28 0.1.3) echo "Run with a few events ..."
29     source setup.sh
30     ./build.sh
31     Marlin ./run/1lh2zz/steers/test/sample-1.xml
32     ;;
33
34 0.1.4) echo "Generate Condor job scripts..."
35     mkdir -p ./run/1lh2zz/condor/script/marlin
36     ./python/gen_condorscripts.py 1 ./run/1lh2zz/steers ./run/1lh2zz/condor ${sel_signal}
37     ;;
38
39 0.1.5) echo "Submit Condor jobs for pre-selection on signal..."
40     cd ./run/1lh2zz/condor
41     mkdir -p log
42     ./condor_submit.sh
43     ;;
44
45 0.1.6) echo "Select events on signal (with a small sample)..."
46     mkdir -p ./run/1lh2zz/events/ana
47     ./python/sel_events.py ./run/1lh2zz/ana/ana_File-1.root ./run/1lh2zz/events/ana/ana_File-1_event.r
48     ..
```

*Compare & extract good part from both side.*

# Kong Lingteng

- Get the AFS account and learn how to submit jobs.
- Read the sel\_events.py, learn how it works.
- Edit plt\_summary.py and plot the signal of dimuon

