

CREX replay github repository

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Github link: <https://github.com/JeffersonLab/crex-optics-replay>

farm path: [/w/halla-scifs17exp/parity/disk1/crex_optics/](#)

1. clean up the replay script with only ParityData lib included: setup.C
2. clean up unused variables and plots defined in outputDef
3. add multiple db_P.dat maps for all the cable changes during CREX

```
20190901
20200322
20200807
20200813
```

db_LeftBCMev.dat

db_LeftScalevt.dat

db_L.fpp.dat

db_L.gem.dat

db_R.fpp.dat

db_RGEM.rgems.dat

db_RightBCM.dat

db_RightBCMev.dat

4. make db_run.dat have the information for every run using the start run log:
“/adaqfs/home/adaq/epics/runfiles_tritium_L(R)/Start_of_Run_%d.epics”

ebeam = Tiefenbach 6GeV Beam energy (MeV) *1.003

angle = 4.78 (LHRS), -4.762 (RHRS)

pcentral =

- RHRS: $2.702 * \text{Right_Arm_D1_NMR} - 1.6e-03 * \text{pow}(\text{Right_Arm_D1_NMR}, 3)$;
- LHRS: $\text{Hall A Probe} * 0.95282 / 0.33930$

5. fix the analyzer version: crex_optics/analyzer-1.6.6

6. generate runlists for each target based on the “Alignment runs” in

<https://docs.google.com/spreadsheets/d/1SngpqgLLULtcuKD0t9k-A2Cpmxy1jb5bIYnnP8f8zPM/edit#gid=1910123414>

7. farm job submit scripts: replay/submit_run.py

8. replayed all the runs and saved at [/lustre19/expphy/volatile/halla/parity/crex_optics_rootfile](#)

Please run your analysis scripts and see if there is any issue with the root files.

Feel free to push modifications and changes to the GitHub repo

```
-----[ 2019-12-12 07:23:29 ]
# parameters from EPICS run 21696
ebeam = 2.18272
R.theta = -4.762
R.pcentral = 2.18844
-----[ 2019-12-12 07:26:01 ]
# parameters from EPICS run 2631
ebeam = 2.18248
L.theta = 4.78
L.pcentral = 2.18281
-----[ 2019-12-12 08:02:59 ]
# parameters from EPICS run 2634
ebeam = 2.18258
L.theta = 4.78
L.pcentral = 2.18281
-----[ 2019-12-12 08:03:03 ]
# parameters from EPICS run 21699
ebeam = 2.18263
R.theta = -4.762
R.pcentral = 2.18843
```