

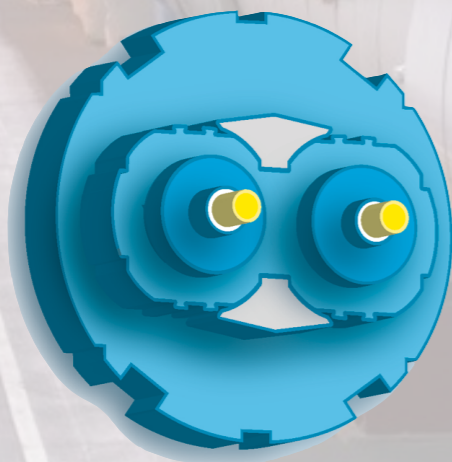


ÉCOLE POLYTECHNIQUE  
FÉDÉRALE DE LAUSANNE

# Update on On-going DA studies

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**High  
Luminosity  
LHC**



**LHC@home**  
**SixTrack**

Old Style:

- results from boinc assimilator go to `/afs/cern.ch/user/b/boinc/scratch0/boinc/"study_name"/`
- you have to run `run_results` that:
  - read from `sixdeskenv` all the infos(`study_name, dir, seed, tunes, amp, turns, angle, ..`)
  - create the dir structure `sd/track/study_name/seed/kind/tunes/amps/turns/angle/`  
( EX: `1/simul/62.31_60.32/14_16/e6/80/`)
  - copy file from boinc dir to newly created local dir, changing name from something like:  
`sd_sixt33_540_1.4_4D_err__1__s__62.31_60.32__8_10__6__45_1_sixvf_boinc60`  
to `fort.10` and compressing it to `fort.10.gz`
  - remove file from boinc dir and do other things I don't really care at present

Then you have your local copy of data and you can run your post-processing (either old version `run_join/run_post/run_awk` or my `.py`)

These is not so practical if you have various (>100) job to retrieve: each time you have to go through all the "space parameter" of the job and see if there are new available jobs.

My new approach is conceptually easier:

-look on boinc dir for new files that are:

-mine (checking owner label)

-have in the name some flag I'm looking for (study parameters):

`sd_sixt33_540_1.4_4D_err__1__s__62.31_60.32__8_10__6__45_1_sixvf_boinc60`

-guess all the other parameters from the name and add the file to a sqlite db (sixt33\_4D\_err.bd)  
only if not already there

-delete file on boinc (disabled for the moment for testing purpose)

For doing this I added some class to sixdeskdir.py with extended functionality (more details offline to interest people)

Pro:

- save space on personal afs (no need for replicated afs structure)

- more integrated with my post processing

- can be added to a cron job for automatic retrieve data when available

- lot faster (actually I'm surprised...):

for my std study: (15 beam int, 12 angles, 8 initial amps, 17 angle ->~25k files) **~5min vs ~7h**

Cons:

- some options not implemented yet (like the plots produced by run\_post)

- not ready for production release yet (need debugging)

-maybe other I don't see...