Updates on nikhef cluster

Data on /dcache/antares/detector_data

- Data
  - ORCA4 (44): all raw data
  - ORCA6 (49): all raw data up to June
  - (Already there: some files from detector 14, 29, 39, 42, 43)
  - Question: which detx to use for reconstruction?

- MC
  - ORCA4-RBR: all MC-reco (only JGandalf run)
  - ORCA115: 20m and 23m classified files (ECAP summary format) + some more

New programs on /project/antares/public_student_software

- Cmake (3.17.3)
- gSeaGen (dependencies: GENIE, MUSIC, TAUSIC, TAUOLA, LOG4CPP, LHAPDF, PYTHIA6)
- GENHEN
- KM3sim [broken] (dependencies: XERCES-C, GEANT4)

- Source all of these programs:
- $ source /project/antares/public_student_software/env_scripts/env_software_experimental

More new programs on /project/antares/public_student_software

- Python virtual environment with km3pipe, km3io for running PID code. Source this by running:

- $ source /project/antares/public_student_software/venvs/km3pipe-v9-alpha14/bin/activate

- NB: this is version v9-alpha14, many changes in pipeline towards v9. To be updated to v9 when it is available

- NB2: Does not run jupyter lab, does run jupyter notebook

- Jpp v13, source this by running:

- $ source /project/antares/public_student_software/data_processing/data_processing_nikhef/env_root-v6.20.04_jppV13.0.0

data_processing...

- Data processing is 'available' at
  /project/antares/public_student_software/data_processing/data_processing_nikhef

- Minimal version:
  - Adjusted to run on stbc cluster
    - Different version of qsub / options / variables
  - For now only tested on "normal" MC generation, not RBR, not data-reco
  - Tested with GSG, MUPAGE, not GENHEN
    (test means 'it runs', not benchmarked or cross-checked)
  - Tested with JSirene, JTE, JGandalf, JShowerFit (this should run if Jpp runs)

Running data_processing (removed output)

```
( 16:47 ) ljnauta@stbc-i2.nikhef.nl   /project/antares/public_student_software/data_processing/data_processing_nikhef  ‹master*›
➤ source setenv.sh
```

```
( 16:47 ) ljnauta@stbc-i2.nikhef.nl   /project/antares/public_student_software/data_processing/data_processing_nikhef  ‹master*›
➤ ./control_jobs.zsh configs/config_ORCA6_test_nikhef_qsub.zsh
```

```
4795707[].burrell.nikhef.nl
```

```
( 16:47 ) ljnauta@stbc-i2.nikhef.nl   /project/antares/public_student_software/data_processing/data_processing_nikhef  ‹master*›
➤ qstat -u ljnauta

burrell.nikhef.nl:
                                                              Req'd   Req'd        Elap
Job ID                Username    Queue    Jobname    SessID  NDS   TSK  Memory  Time    S   Time
--------------------- ----------- -------- ---------- ------- ----- ---- ------- ------- - --------
4795707[].burrell.nikh ljnauta     express  atm_neutor    --    --   --    --      --    Q    --
```

data_processing

- "Buy it, use it, break it, fix it" -Daft Punk

- Do not write to /project/antares

- Not version controlled yet (not on git), so just copy the folder (bad practice)