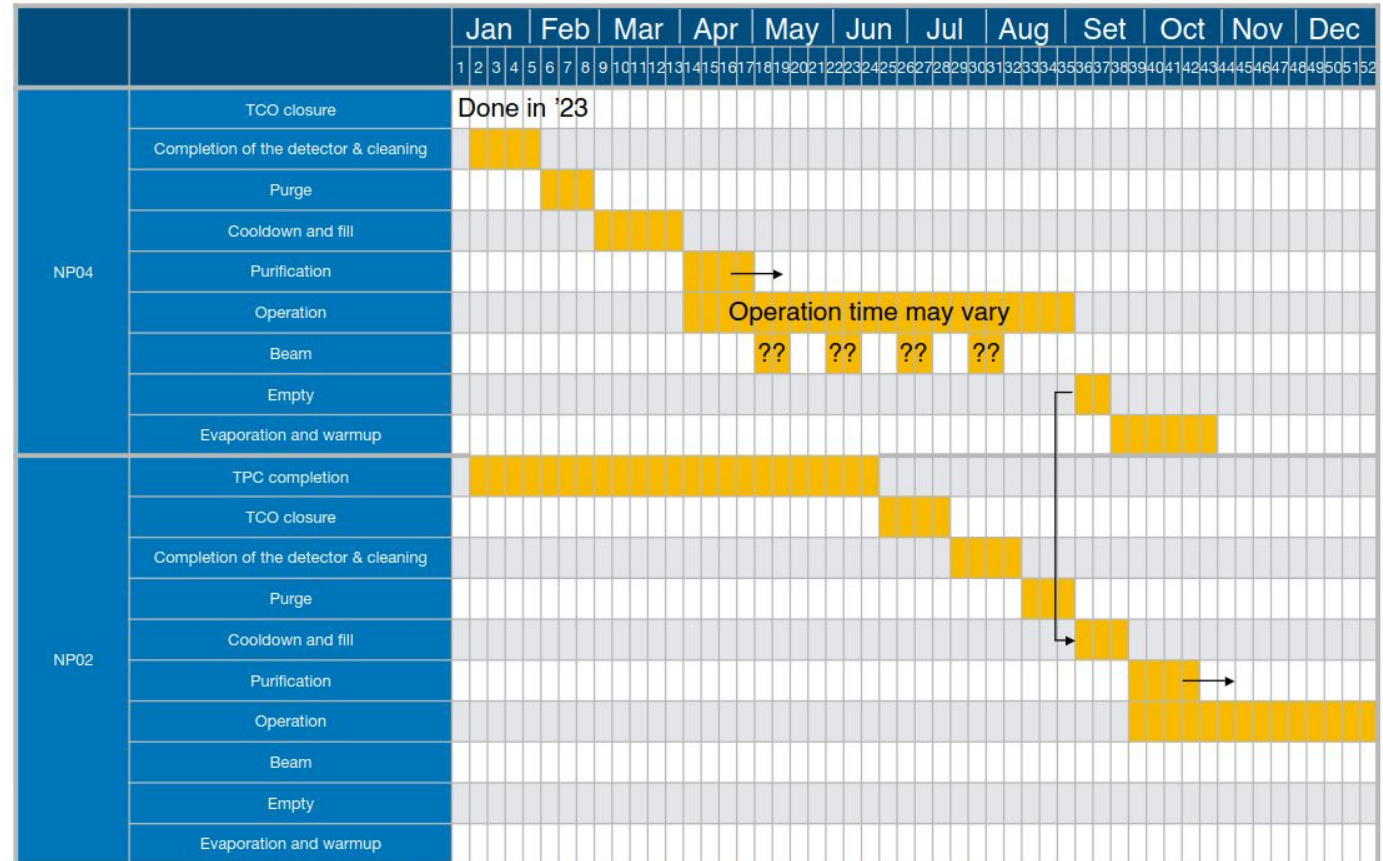


# ProtoDUNE's PDS Sim/Reco updates

J. Soto

# Updates

- ProtoDUNE-HD data-taking will start imminently.
- [Data-taking coordination meetings](#) on Thursdays at 17h00 CERN time.
- Call for an in-person data-taking training on February 12th-16th.



Filippo Resnati - DUNE Collaboration Meeting - CERN - 22<sup>nd</sup> January 2024

# Questions

Concerning ProtoDUNE-HD data. There are some things we need to clarify:

- How many triggers we will have?
- How can we see the trigger type in the data?
- Do we have PDS only data? (for calibration, for taking data without drift fields, for example).

# Updates

- New fhicls have been added to run PDS simulation:
  - **ProtoDUNE HD** are already on develop (Jake is generating new samples including light).
  - **ProtoDUNE VD** are still on a PR to be merged soon (Yoan will generate samples too). Two workflows:
    - Pure Ar simulation: 2 geant 4 stages/fhicls:
      - protodunevd\_refactored\_g4\_stage1.fcl (common)
      - protodunevd\_refactored\_g4\_stage2\_pureAr.fcl
      - protodunevd\_refactored\_detsim\_pureAr.fcl
    - Xenon-doped LAr: 3 geant4 stages/fhicls:
      - protodunevd\_refactored\_g4\_stage1.fcl (common)
      - protodunevd\_refactored\_g4\_stage2\_Xe10ppm.fcl
      - protodunevd\_refactored\_g4\_stage3\_Xe10ppm.fcl
      - protodunevd\_refactored\_detsim\_Xe10ppm.fcl
    - PMTs are not yet well simulated (all channels are treated like XArapucas).
- Photon libraries are the only available option for now. Computable graph will come soon for VD.
- A few cross-checks could be done. New hands are welcomed!

# Agenda today

- ProtoDUNE-HD data analysis strategy (Laura).
- First steps accessing PDS data (José).