

### Run modes and calibration

- **Target: SRO shall provide a rapid turnaround to full reconstruct data**
- Needs define calibration requirements from each sub-detector
  - how much data are needed?
  - when often?
  - how/where to apply corrections to data?
- Correction should be autonomous (AI/ML algorithms as a second iteration or from start?)
- At which level (Echelon 0 and/or Echelon I)
- Calibration and simulation framework
- **Discussion:**
  - how to implement an iterative procedure in (semi) real-time (some detectors may need info from others)
  - Are calibration parameters biasing the data set we will write on disk?
  - Are calibration procedures background-aware and how to reliably estimate that bg?
  - Cal procedures should be defined well in advance
  - Infrastructures are needed (e.g monitoring)
    - ASIC level: e.g. 0 suppression
    - DAQ level: eg. clustering
    - SRO level: final physics extraction: how it propagates back to the FE?
  - How to define calibration procedure if some sub-detectors are not yet be fully designed? or they miss some crucial information (e.g. to fore the TOF system)?
  - We should identify calibrations requiring dedicated runs and calibrations that could be extracted by production run streams
  - Shall we consider injecting a RND-trigger (fully unbiased) data stream in parallel to production run stream?
  - The alignment may require special procedures that need to be considered upfront