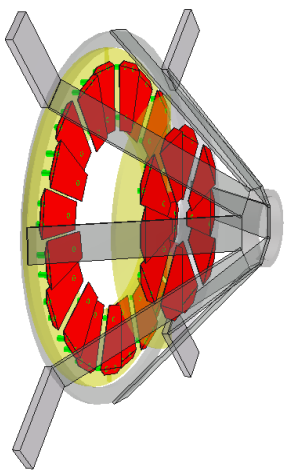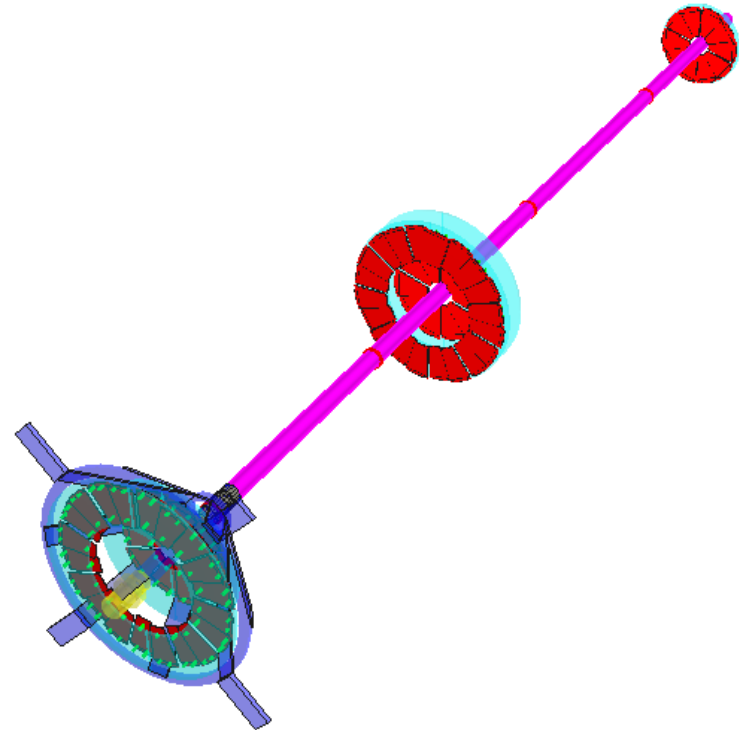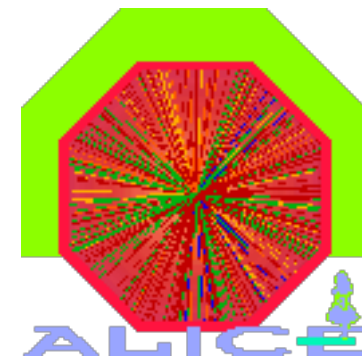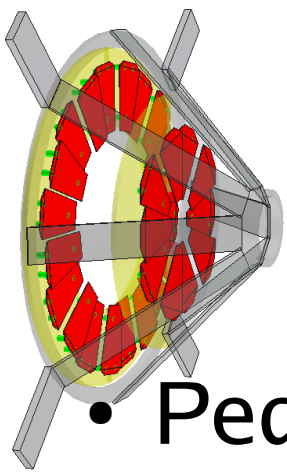# FMD Quasi-online Calibrations
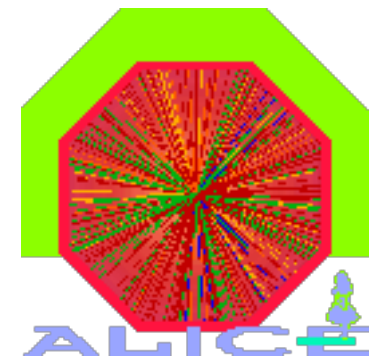
- Algorithms and strategies
- Current status
- Tentative Time Table
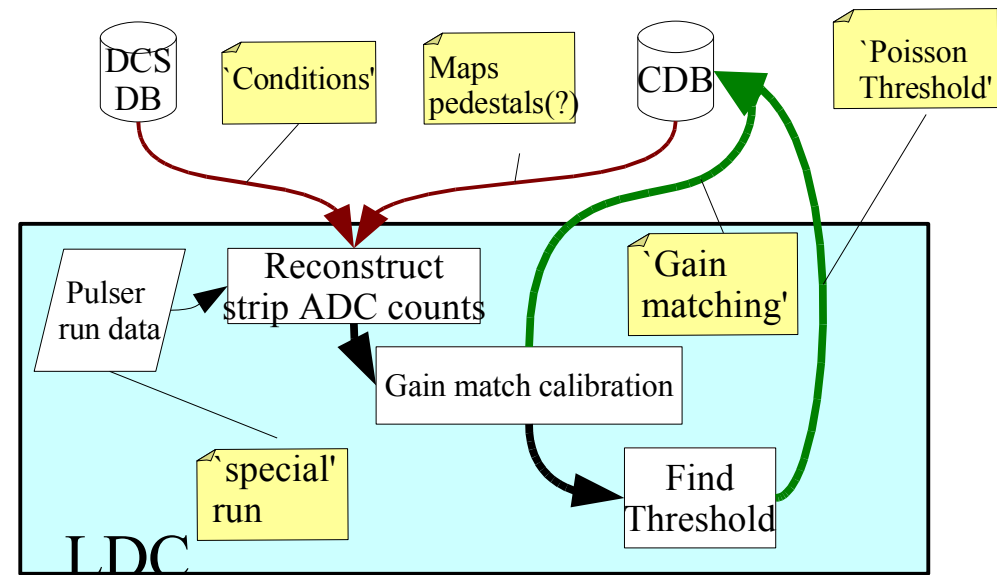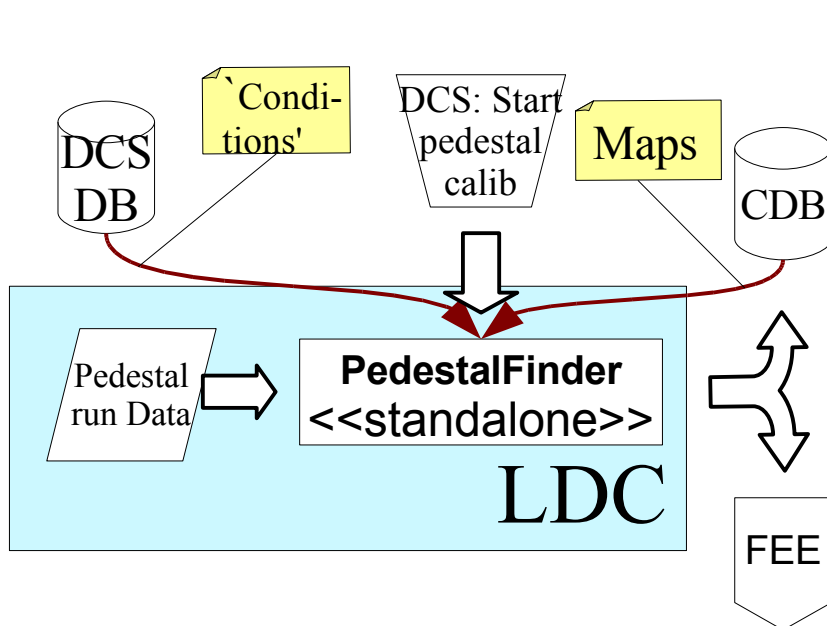- Other issues
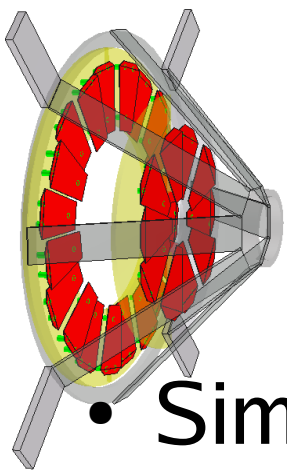- Open Questions

Algorithms

- ## Pedestals
  - Done on LDC
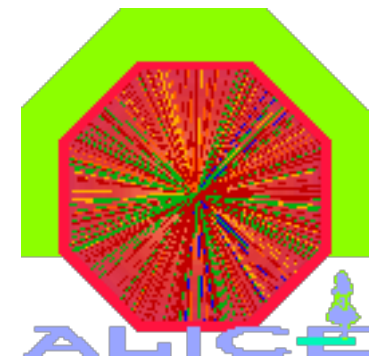 - Result to FEE (via DCS?) and CDB (via SHUTTLE)

- ## Pulser gains
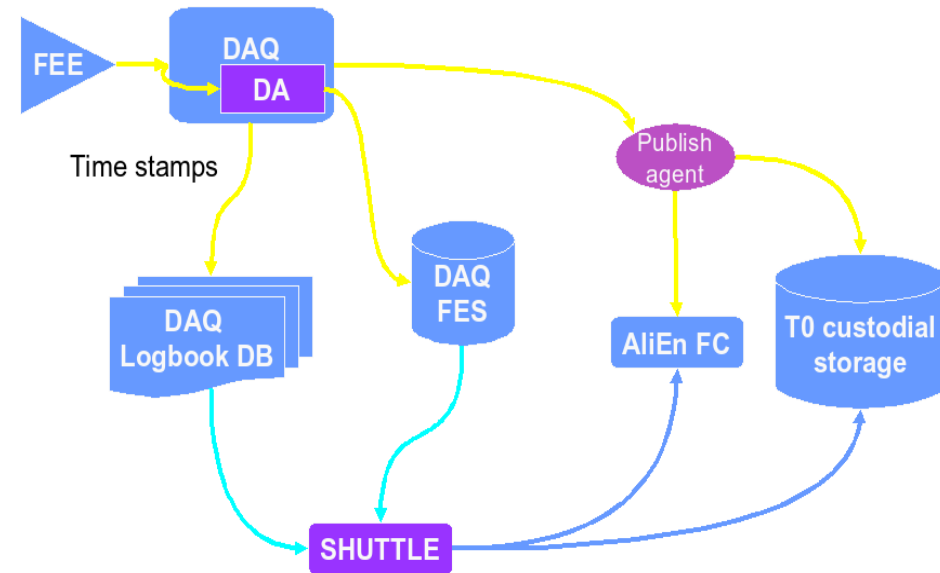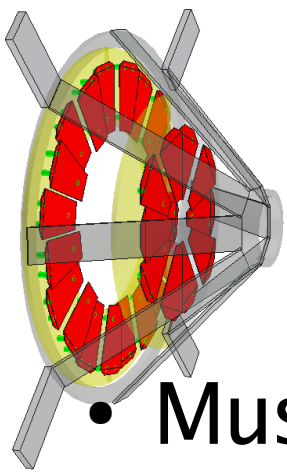 - Special `chopped' run
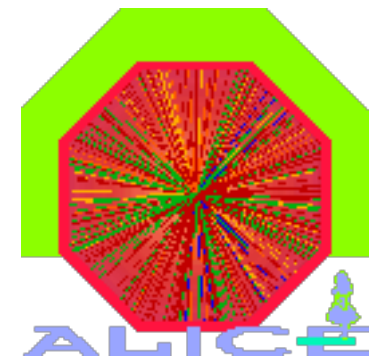 - Result to CDB (via SHUTTLE)

Strategies 1 - Pedestal

- Simply histogram ADC values from all strips (and over-samples)

- Post-proc. get $\overline{ADC}$ & RMS_{ADC} (poss. fit μ & σ)

- Result stored in `AliFMDCalibPedestal`

- Basically a `no-brainer' :-)

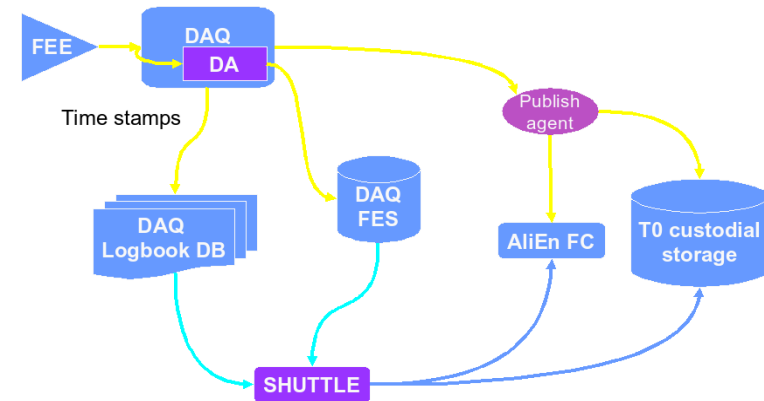- `Use case 1'

Strategies 2 – pulser gain

- Must make `sub-runs',
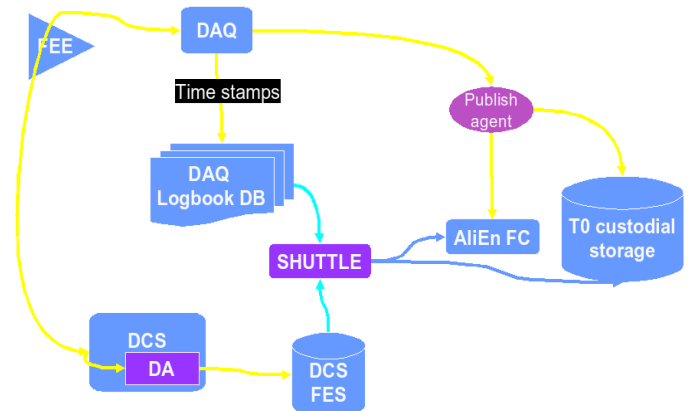 according to:

```
record_data_on_ldc();
for (i = 0; i <= 127; i++) {
  set_strip_range(i,i);
  for (j = 1; j < npulses; j++) {
    set_pulser_voltage(j * dpulse);
    for (k = 0; k < nevents; k++) {
      get_event();
    }
    calculate_mean_of_data();
  }
  f = fit_pulser_voltage_vs_mean_of_data();
  write_to_CDB(f);
}
```
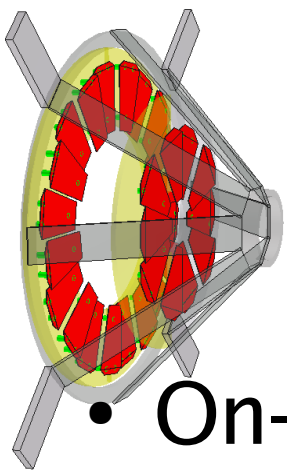
- Maybe w/self-trigger (need sync. w/DAQ).
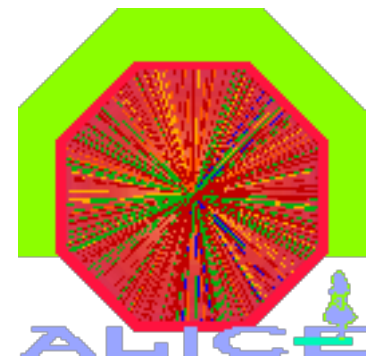
- ITS similar strategy?
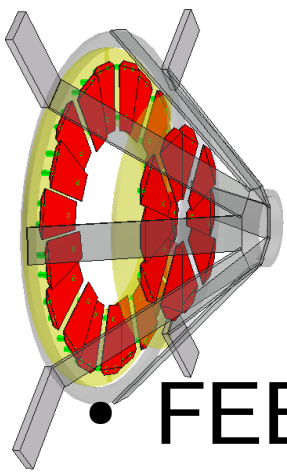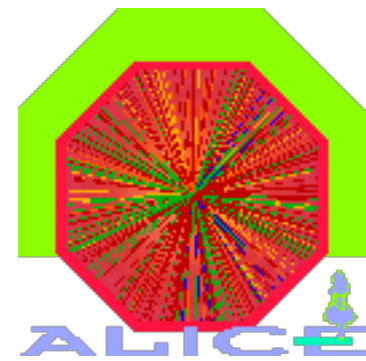
- `Use case 1'

- or `Use case 3'

Current status

- On-line code:
  - Very basic prototypes.
  - Would like some input on pulser calib. from experts (DCS,DAQ,...?)

- SHUTTLE:
  - Nothing so far
- Post-proc.
  - Nothing so far
- `Fake' code in AliROOT:
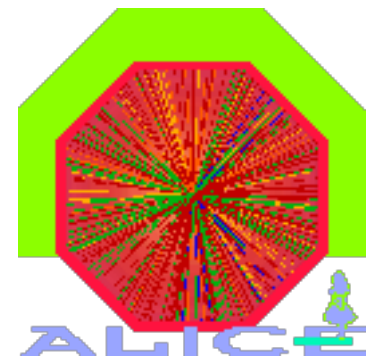 - Nothing so far (has low priority).

Tentative Time Table

- FEE work has taken a lot of time.

- Large overlap of expertise and personnel.

- We hope to simply customize TPC code for DCS, etc.

- Installation creeping up on us.

- End of this year:
  - Pedestal code, prob. w/shuttle.
  - Start work on pulser code.

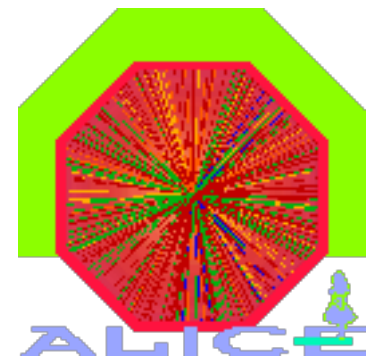- March/April next year:
  - all done.
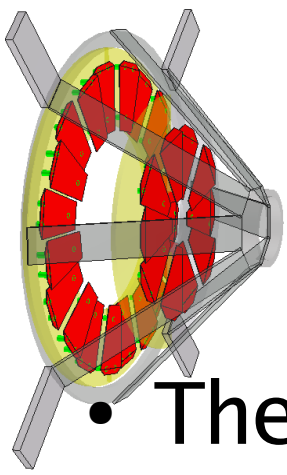
Other issues

- There are other `conditions' that is needed off-line.

- These are stored in the DCS DB as set points.

- Alternatively, they could be appended to RCU data stream.

- A SHUTTLE will pick up these from DCS, and store them in CDB.
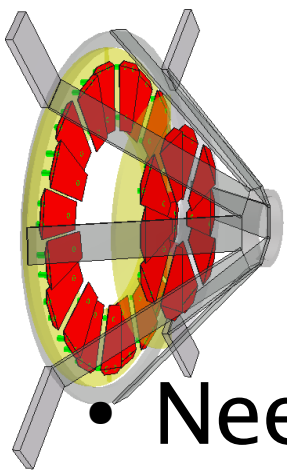
Open Questions

- Need to look into SHUTTLE framework.

- Need to find best option for triggers for pulser gain calib.

- Maybe others have similar problem?

- Need to know if and what can be appended to RCU data stream.

- Need to figure out how to put pedestals to FEE from LDC (TPC input?)