

# Monitoring RICH online calibration

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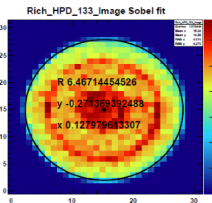
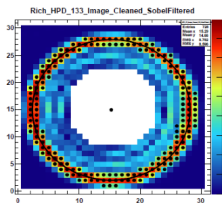
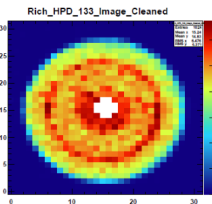
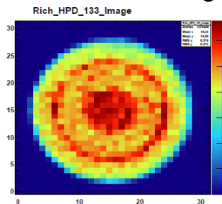
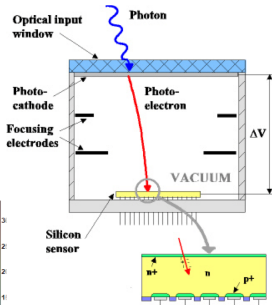
CERN

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# Introduction, RICH HPD image calibration

- RICH calibration includes calibrating **RICH HPD image**
  - ▶ Affected by magnetic/electric fields
  - ▶ Anode images cleaned, Sobel filter used to detect the edge

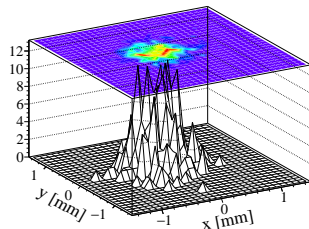
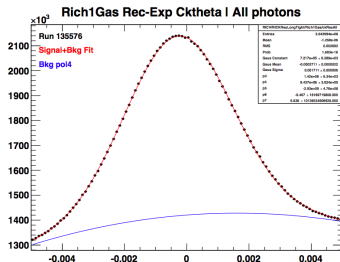


- Monitoring RICH calibration itself

- ▶ Refractive index
  - ★ Two histograms e.g., in case fit problem
  - ★ Trend plot
- ▶ HPD image ( $\sim 500$  HPDs)
  - ★ Distribution of corrections of all HPDs

- Monitoring data quality

- ▶ Cherenkov angle resolution before/after calibration
  - ★ Get the “after”-one from HLT2, not necessarily the same events
  - ★ Rerun Brunel on the same events?
- ▶ Other PID performance plots?



# Technical aspects of trend plots

- One number per run
  - ▶ 2 (refractive index) + 500 (HPDs)  $\times$  3(x, y, r) curves
- Which way is the best?
  - ▶ Presenter?
  - ▶ PVSS
  - ▶ Read CondDB on-demand, then send the plot to Presenter?

