

TB 2024 - PS T09

Longitudinally separated Forward HCal (LFHCal)

September 25, 2024

Friederike Bock (ORNL)

Test beam - August 2024

Dates: 28th Aug-11th Sept **Location:** PS - T09

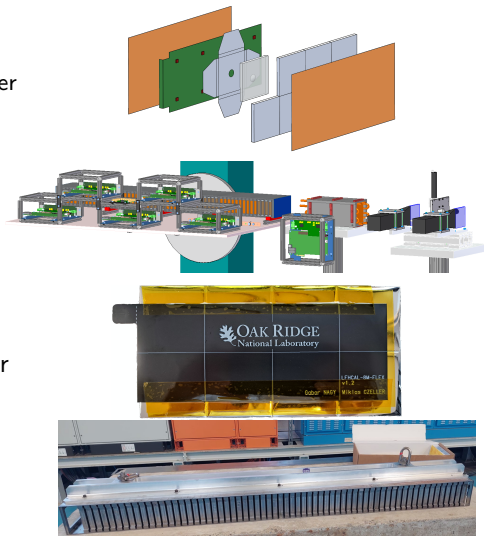
Main purpose: First full module test & H2GCROC tests

Setup:

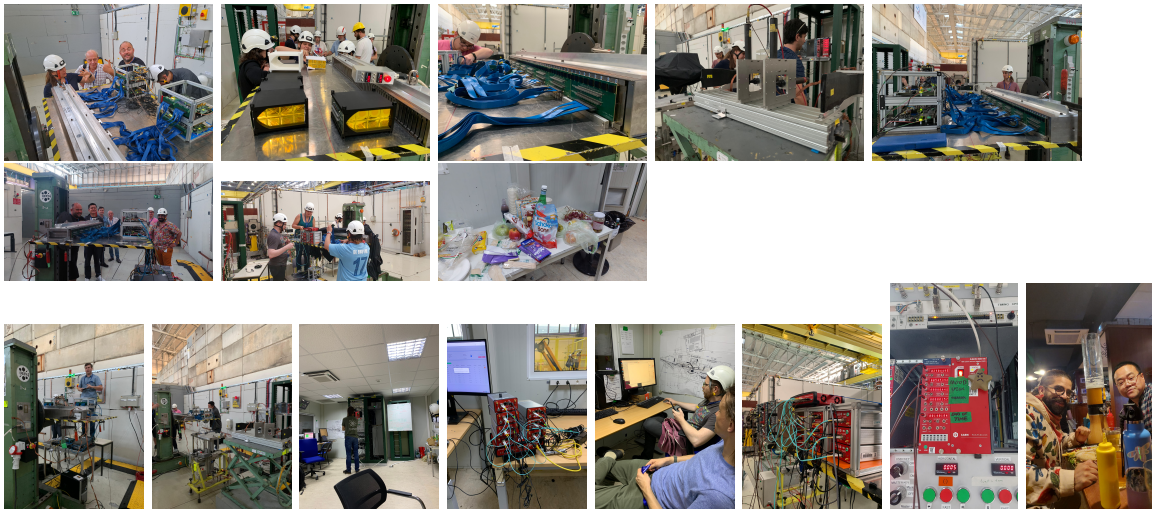
- Full 8M module testing 65 layers of absorber & scintillator per layer 8 channels (swapping scintillator geometry either 8M module or insert)
- Readout with multiple CAEN DT5202 64ch CITIROC SiPM readout units (2nd week) and H2GCROCs (1st week)
- Had to be postponed from May to August due to delays in deliveries of components & new H2GCROC firmware and boards tested during the ALICE FoCal TB in May

Main expected measurements:

- Energy resolution estimates for hadrons and electrons for full length module with both read-out versions
- Assessment of longitudinal leakage
- Longitudinal shower development
- Read-out validation
- Part of campaign with EEEMC in front



THANK YOU TO ALL OF YOU!



shift & general info

Tabulated Logbook

e-Logbook

Directory data on EIC-servers

Log entry on how to access data

Analysis Software started (root)

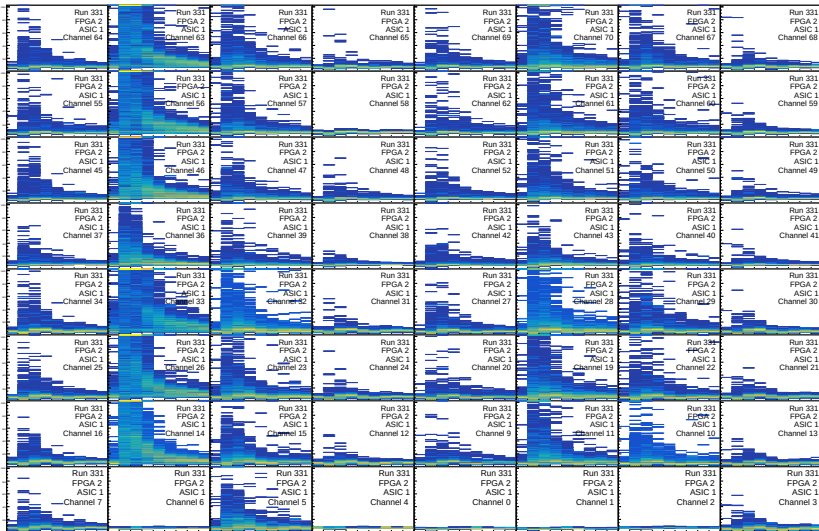
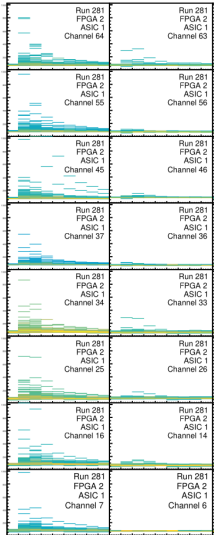
CAEN converter & python code

First results from online monitoring

μ for calibrations

4 GeV e^- for first energy resolution

layer 1-8

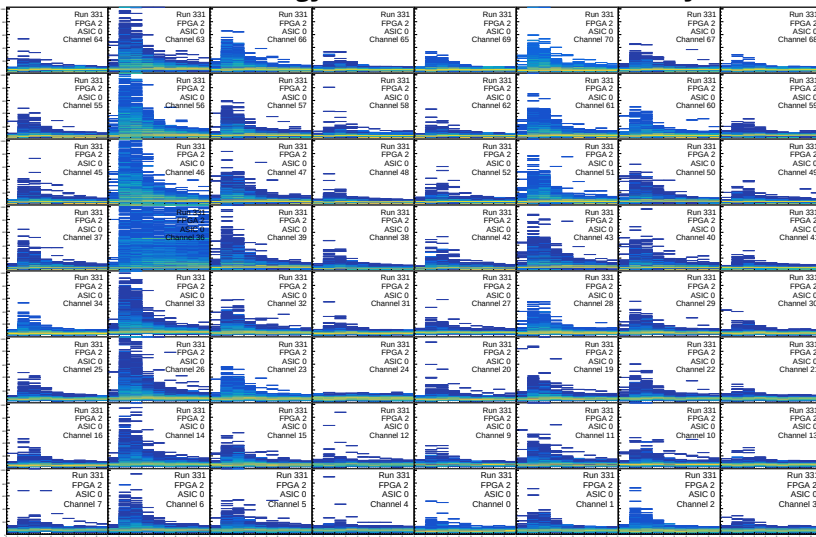
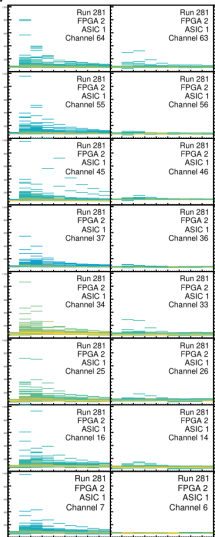


μ for calibrations

First results from online monitoring

4 GeV e^- for first energy resolution

layer 9-16

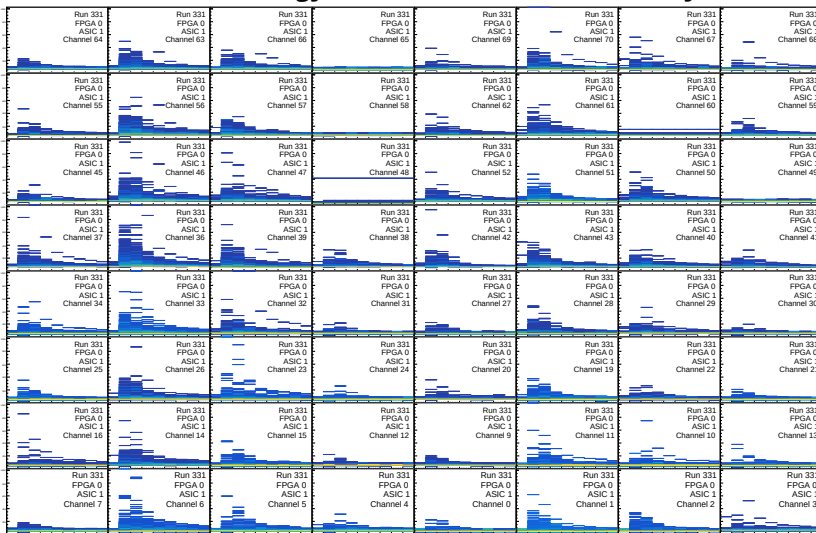
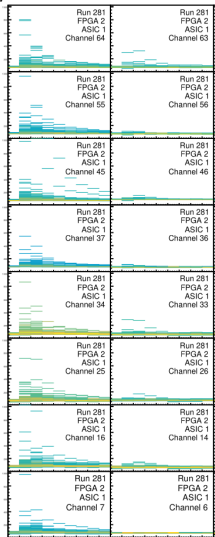


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First results from online monitoring

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layer 17-24

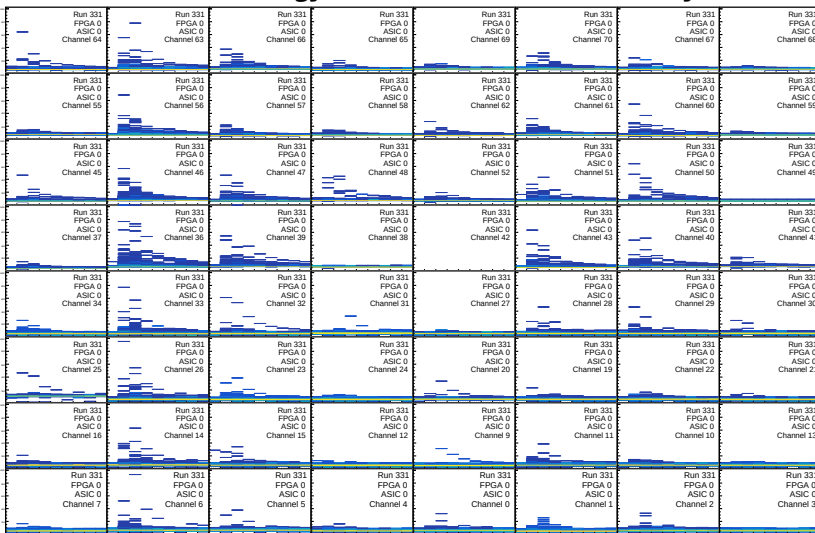
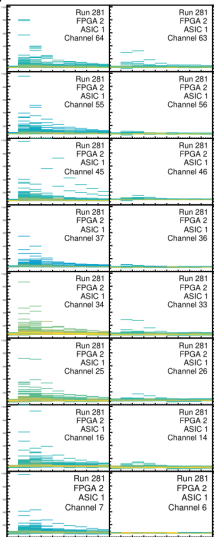


μ for calibrations

First results from online monitoring

4 GeV e^- for first energy resolution

layer 25-32

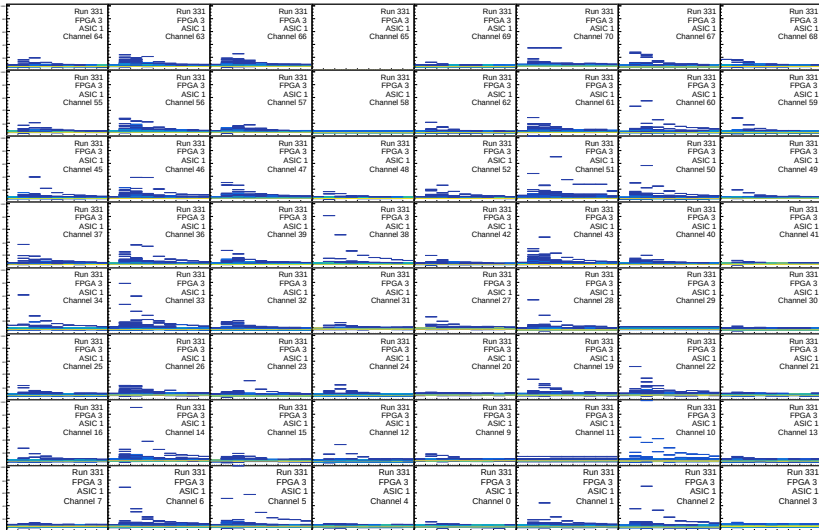
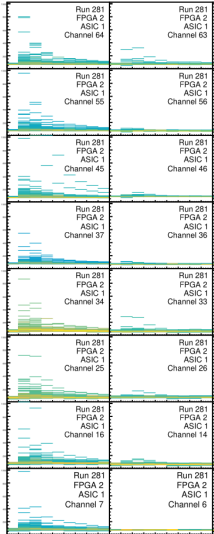


First results from online monitoring

μ for calibrations

4 GeV e^- for first energy resolution

layer 33-40

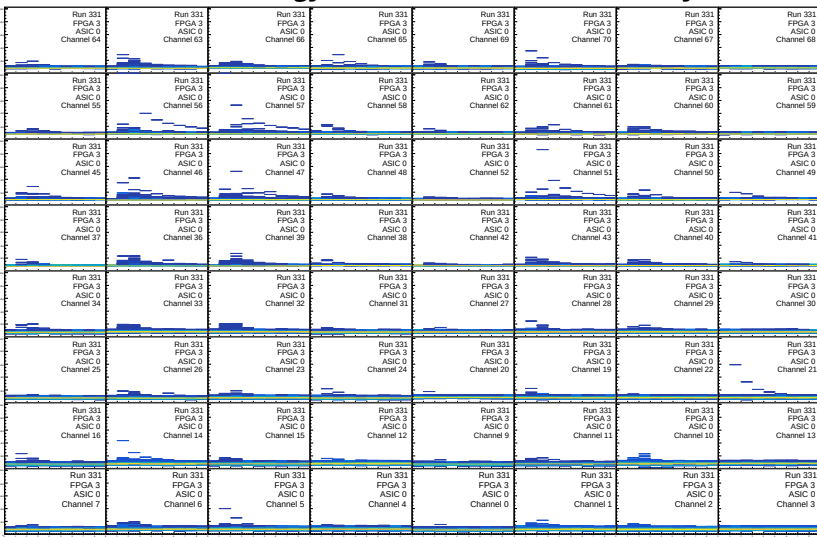
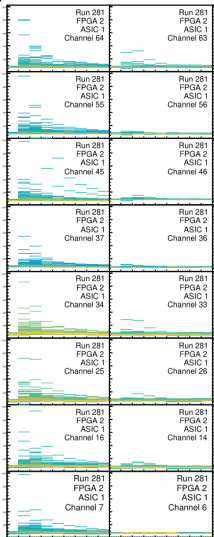


μ for calibrations

First results from online monitoring

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layer 41-48

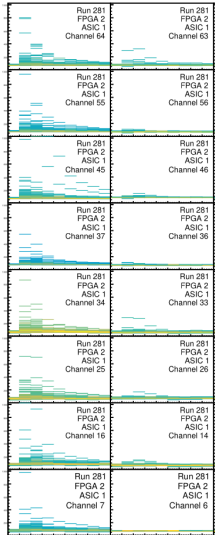


First results from online monitoring

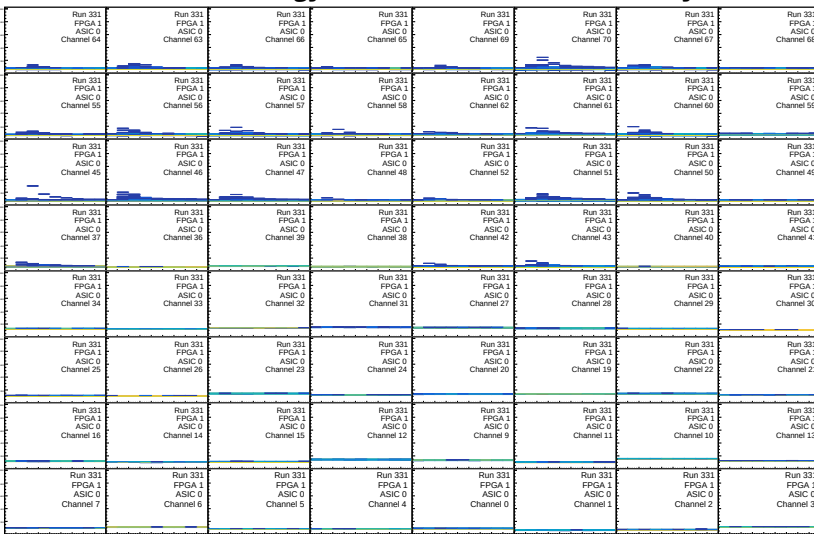
μ for calibrations

4 GeV e^- for first energy resolution

layer 49-56



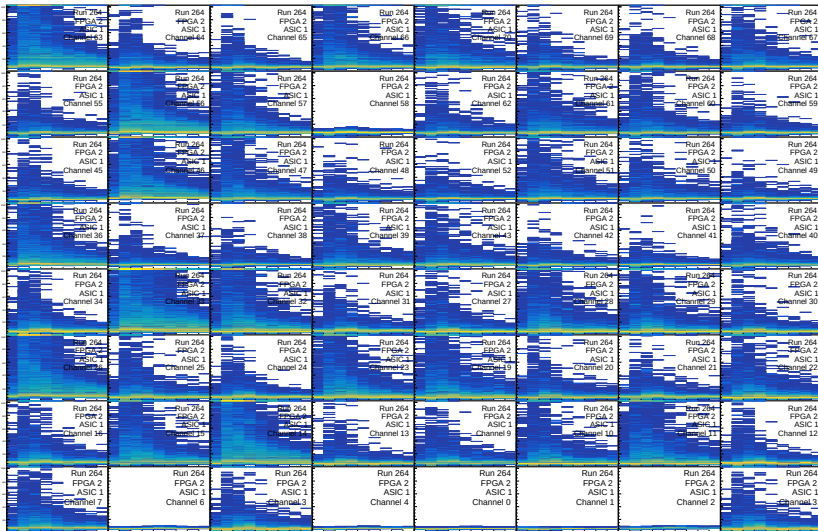
layer 57-64



First results from online monitoring

10 GeV π^- for first shower profiles

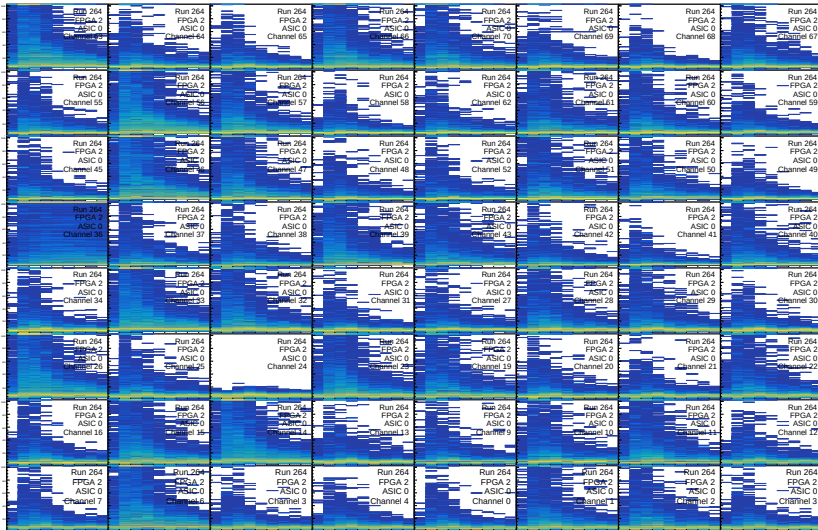
layer 1-8



First results from online monitoring

10 GeV π^- for first shower profiles

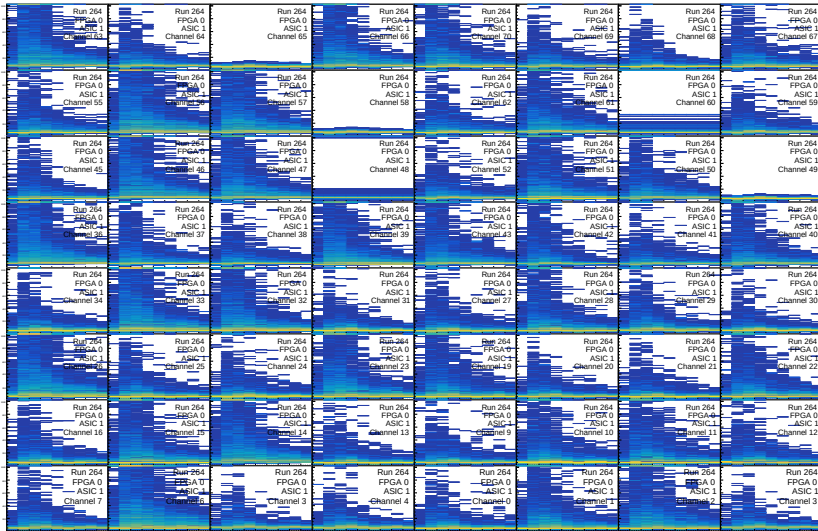
layer 9-16



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10 GeV π^- for first shower profiles

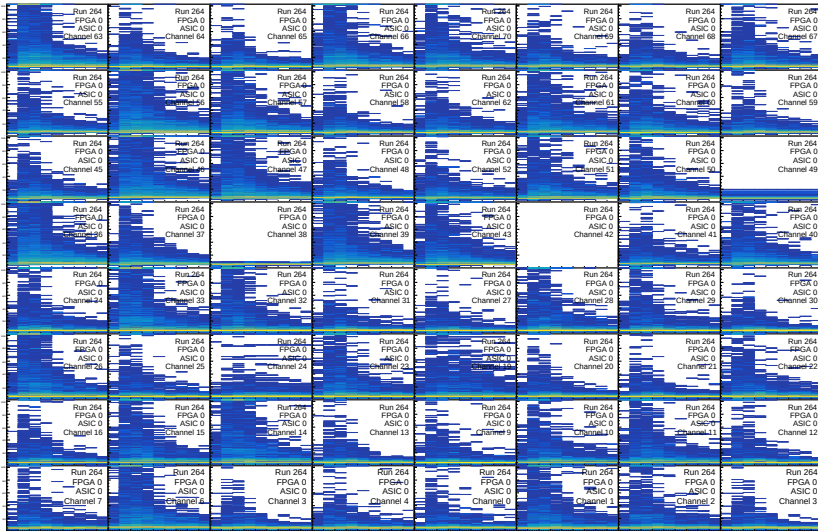
layer 17-24



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10 GeV π^- for first shower profiles

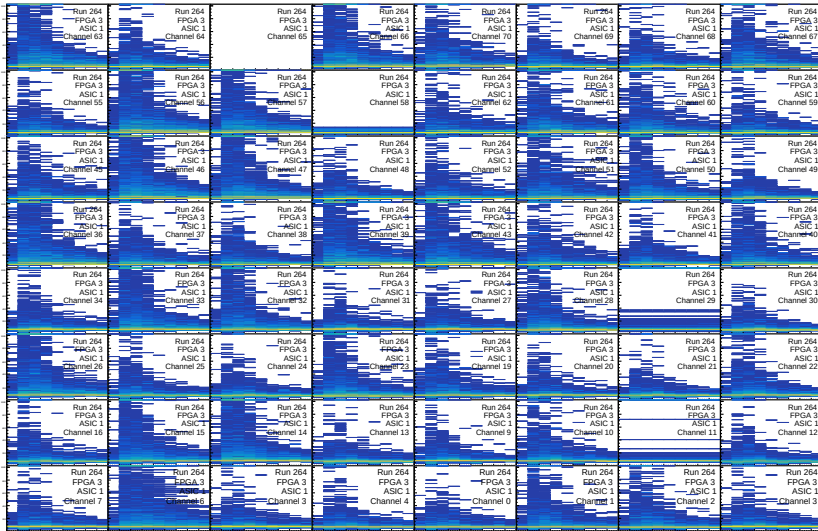
layer 25-32



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10 GeV π^- for first shower profiles

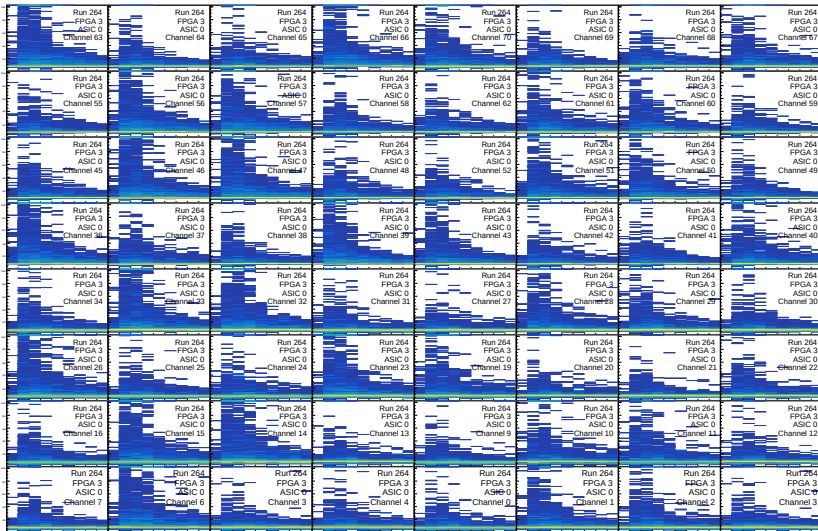
layer 33-40



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10 GeV π^- for first shower profiles

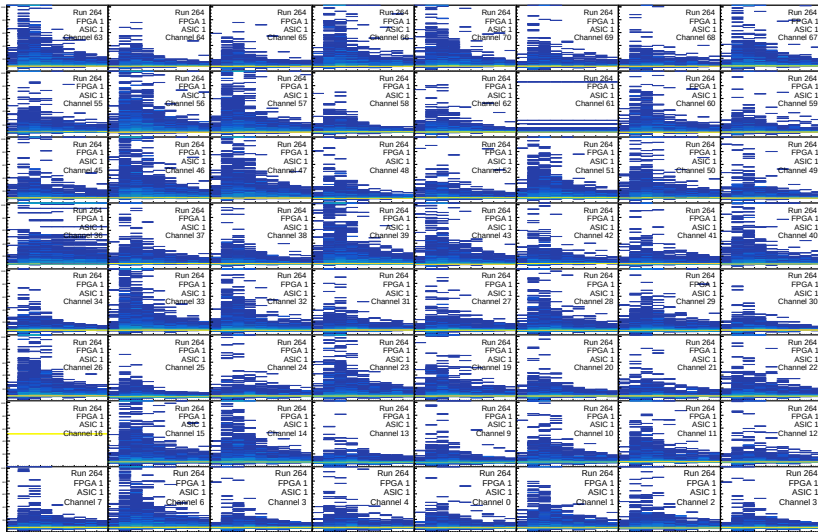
layer 41-48



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layer 57-64

