

PSD CBM supermodule test on T10 (RE 21)

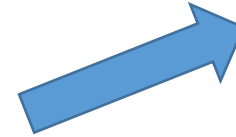
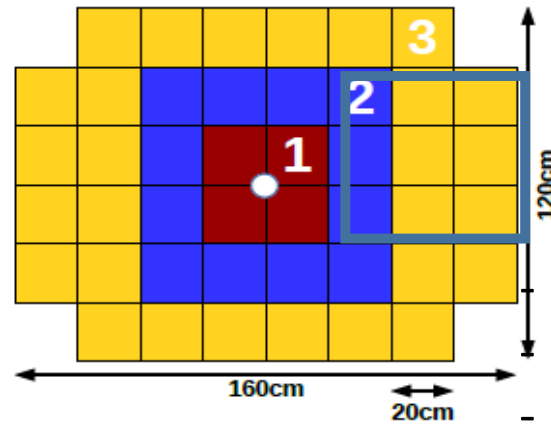
11 -18 April 2018

PSD CBM - lead/scint. forward hadron calorimeter:
44 modules with transverse size 200x200mm²
and longitudinal segmentation
(10 sections in each module)
:

Light readout:

Hamamatsu S12572-010P,
Sensitive area 3 x 3 mm²
nominal gain 1 x 10⁵,
Pixel recovery time - 10 ns

Readout electronics: 2 options have been tested - -
ADC64 and **TOT_TRB3/** readout

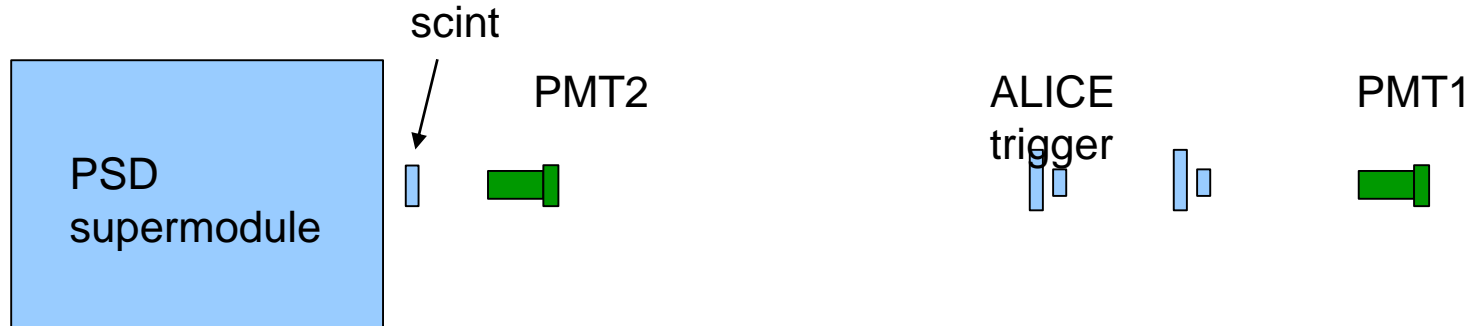


PSD supermodule

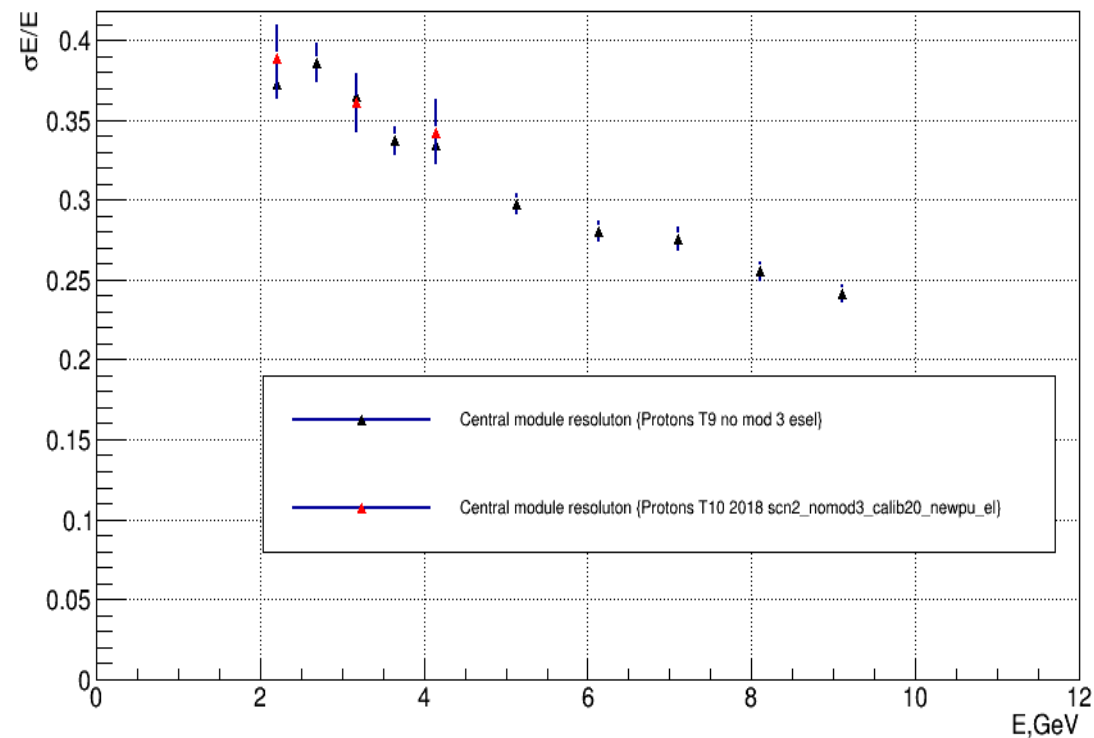
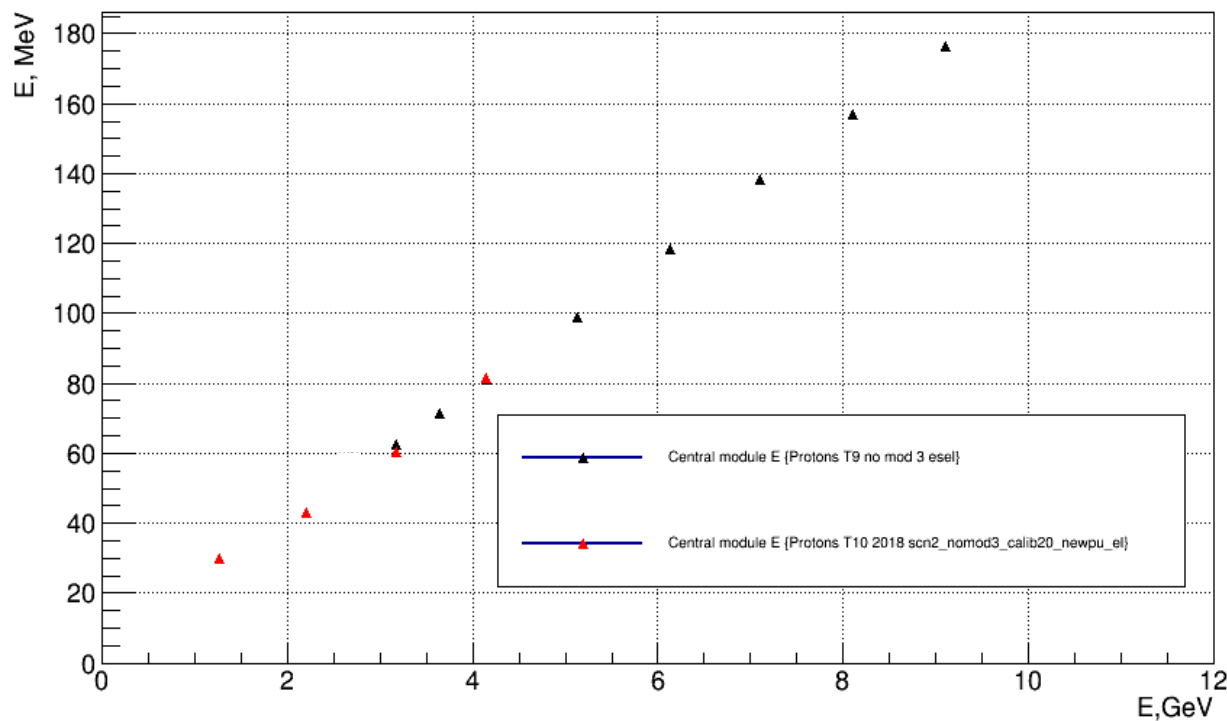


T10 beam test tasks:

- Calibration on muon beam and energy scan (2 – 5 GeV/c protons) with ADC64 readout ✓
- Module response study with TOT_TRB3 readout ✓
- Module response study with irradiated MPPCs ✓



Preliminary results of central module linearity and energy resolution



!8 April – PSD supermodule and red support platform have been moved from T10 at bld. 887 to test in the beginning of May at proton energy range 15 -150 GeV/c on NA61.



Outcome

All planned measurements were successfully performed.

18 April - PSD supermodule is prepared to installation at NA61 during next MD_25 April.

Many thanks to Lau, Michael, East and North area Staff for help in tests preparation and support!