PET-32 prototype: recovering Compton scatterers

S.Foulkes, S.Los, **P.Murat**, A.Ronzhin, E.Ramberg (Fermilab)

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MPPC 11064 gain uniformity

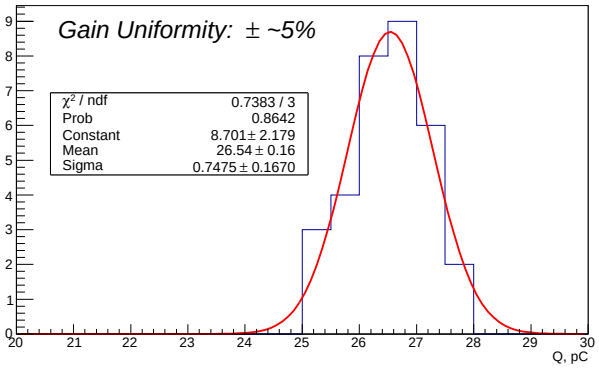
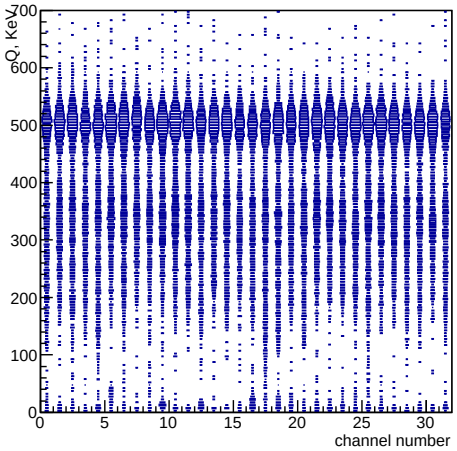


Figure: Gain uniformity



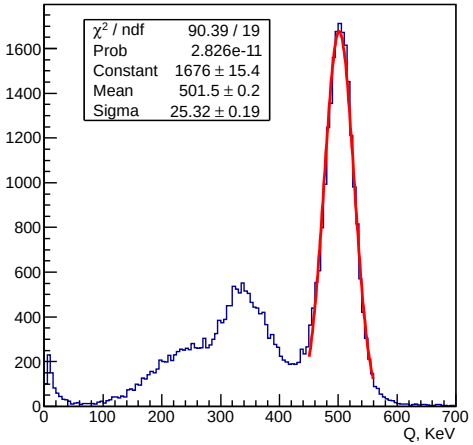
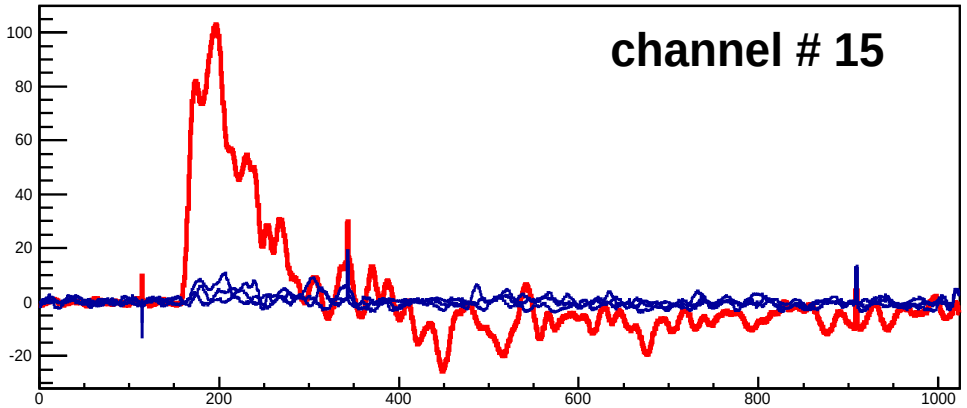
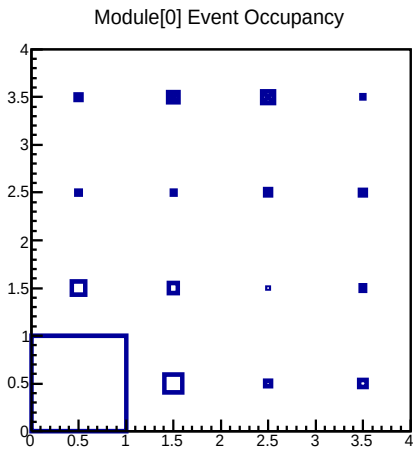


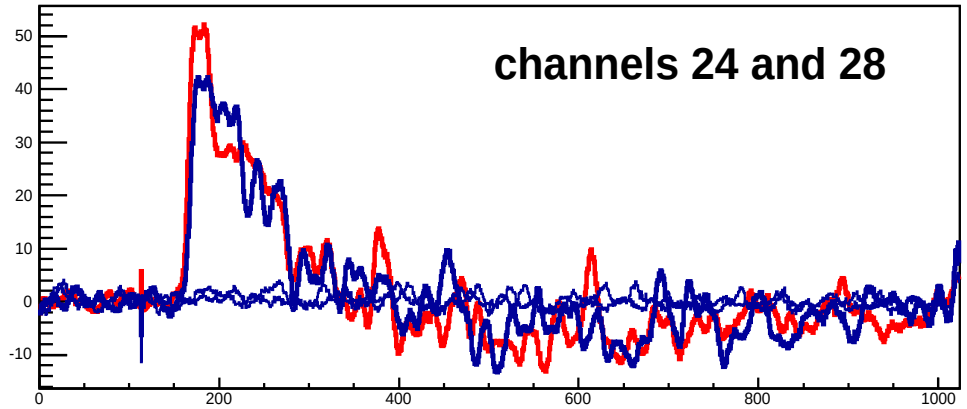
Figure: after gain calibration: charge vs channel number

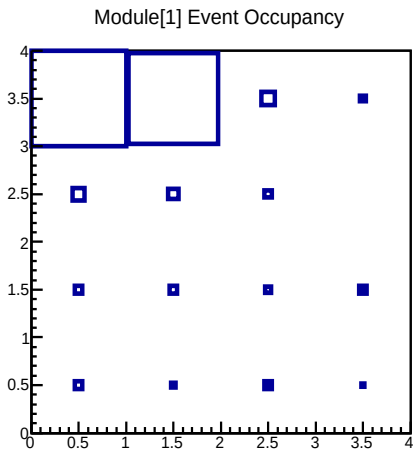
- gain uniformity at the level of 5% (Phillips 776DC amplifiers: 6%)
- energy resolution: 12%

Recover events with Compton scattering









- Compton scattering event - a simple event display
- add up energies in the two channels

Recover events with Compton scattering - Contd

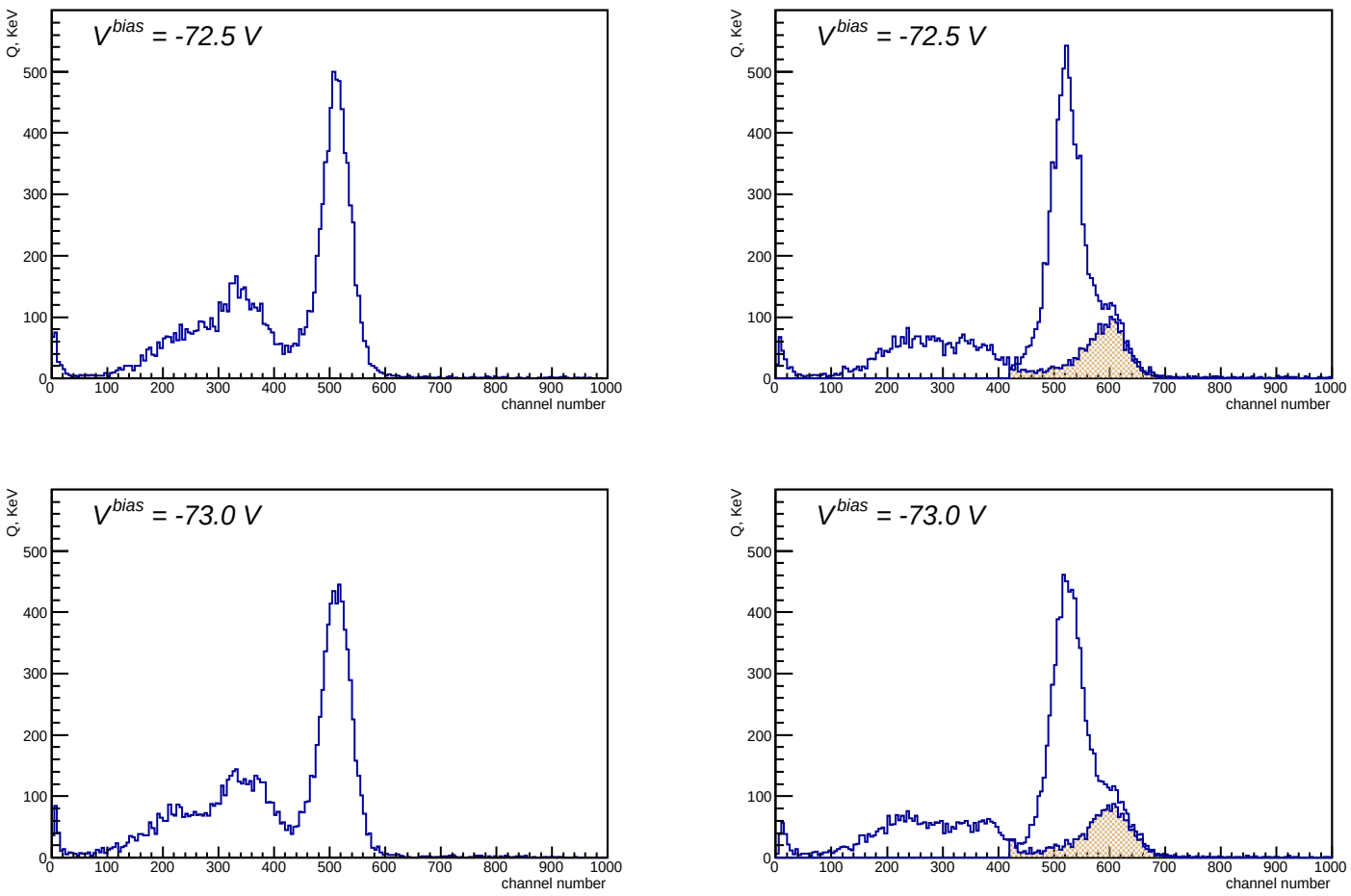


Figure: Compton scattering

- total statistics in the photopeak increases by about 40%
- timing resolution to be investigated

Summary

- excellent uniformity of Hamamatsu 11064 MPPCs
- studies of the Compton scatterer recovery in progress