

Study linearity of the NPS (CCAL) dividers/amplifier

V. Berdnikov, A. Somov, J. Crafts

- Estimate non-linearity of the divider/amplifier for different HV settings
 - vary HV in the range 550 V – 850 V
- CCAL modules inserted to the photon beam. Rate < 100 kHz at 30 mV threshold (estimation of the anode current is in progress)
- Install attenuators (factor 0.1 on 9 channels)
- Measure non-linearity for several CCAL modules (similar behavior observed)
- Two effects observed:
 - positive non-linearity (operation of PMTs at small voltages)
 - negative non-linearity (large anode current)
- Next step: Study performance of the divider with (1) bypassed amplifier, (2) reduced amplifier gain (amplification factor 2)

Work in progress

Calorimeter CELL = -4, -4



