HERMES BEAM LOSS MONITOR

May 13, 2001

Features of the system

- Two sets of ionization chambers (see figure):
  - each set: 3 ionization chambers + 1 dummy
  - ionization chamber: 4×4 cm^2, 1.3 cm thick
- Time constant: 5μs
- Threshold: several tracks (can be adjusted)
- Valid trigger: coincidence of two chambers out of three + veto from the dummy

BLM test

System test with Sr source and with Xrays

- Linearity of the chambers checked
  - comparable sensitivities of the chambers ($\leq$5% difference)
- Linearity of amplifiers checked
- Test with either argon or neon
- Determination of calibration constant:
- 0.27 μA/Gy/s with argon
- 0.115 μA/Gy/s with neon

Requests and questions

- Trigger transmission signal to the new kicker: as fast as possible.
- need of comparing the timing of the BLM to the HERA beam information.
- How does the BKR want to look at the signals?