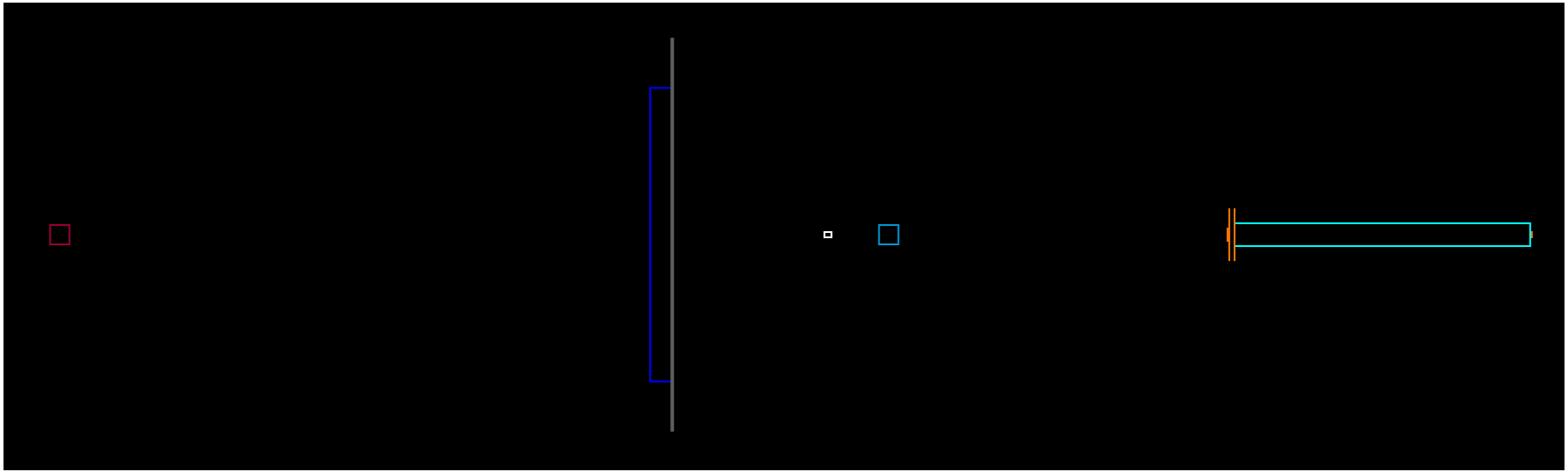
D. Boccanfuso, F. Cirotto, A. D'Avanzo, C. Di Fraia

GEANT4 SIMULATION REPORT

FCC Napoli weekly meeting, 11 December 2024

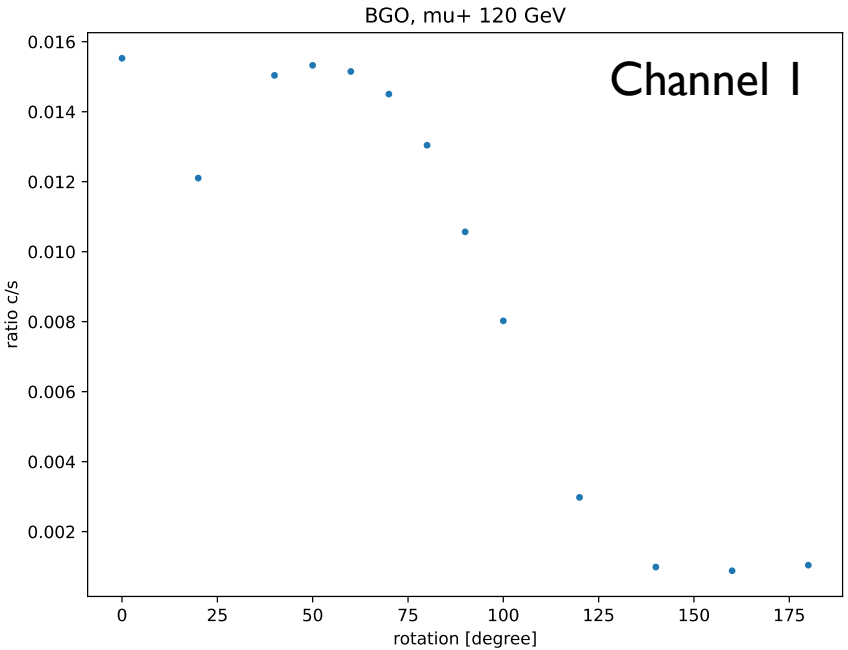
NEWS

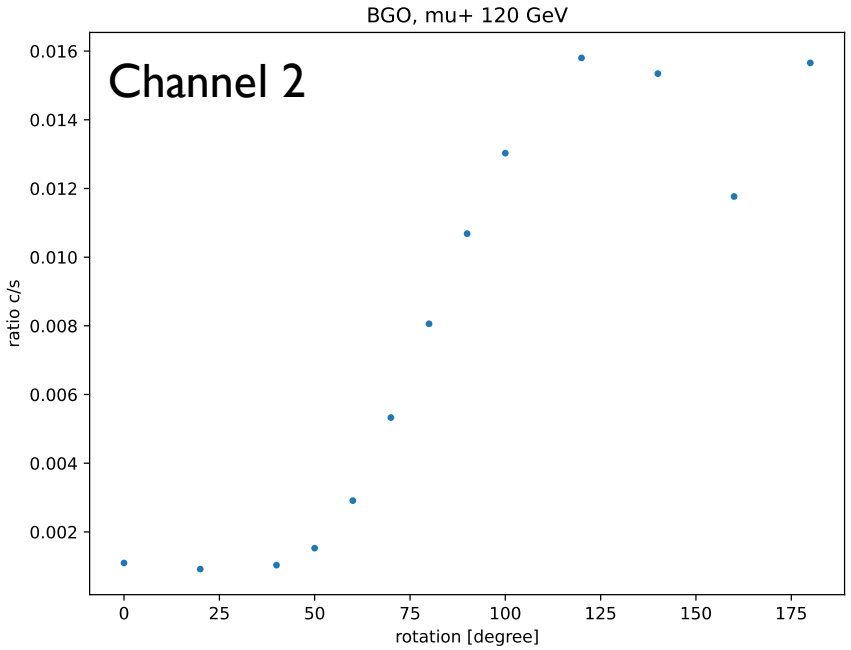
- Added filter to assembly, allowing to rotate
- Muon runs at the the angles used during test beam (0, 20, 40, 50, 60, 70, 80, 90, 100, 120, 140, 160, 180)
- No filter -> 1k events, filter -> 100 events (10 for 180)



AVERAGE C/S IN SIPM: NO FILTER

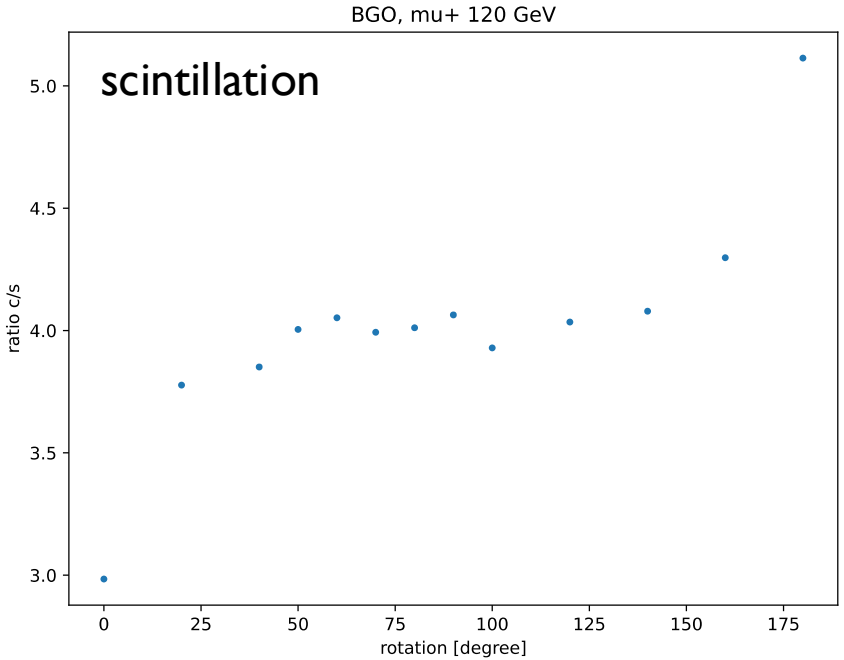
- mu+ at 120 GeV, σ_{beam} = 0.25 cm, 1k events

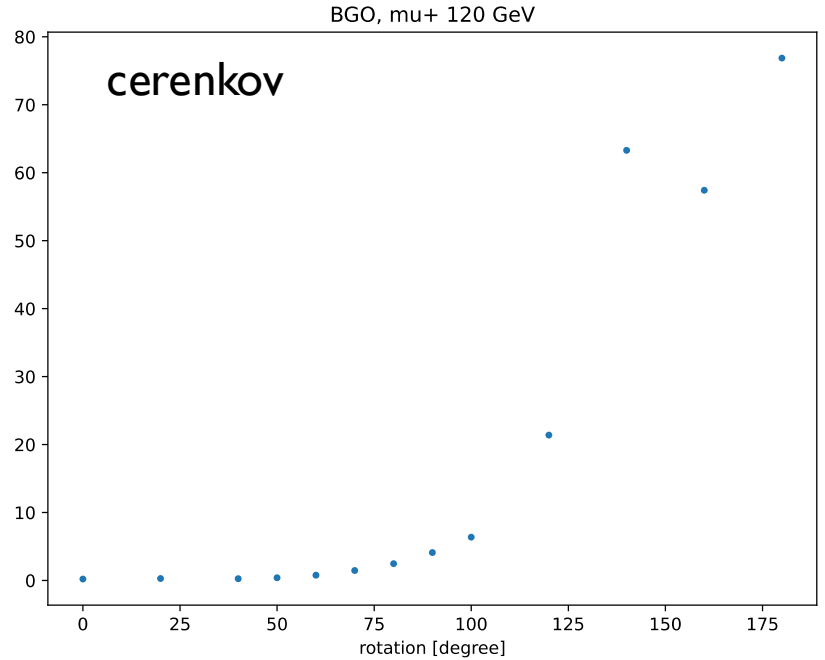




AVERAGE CH2/CH1 IN SIPM: NO FILTER

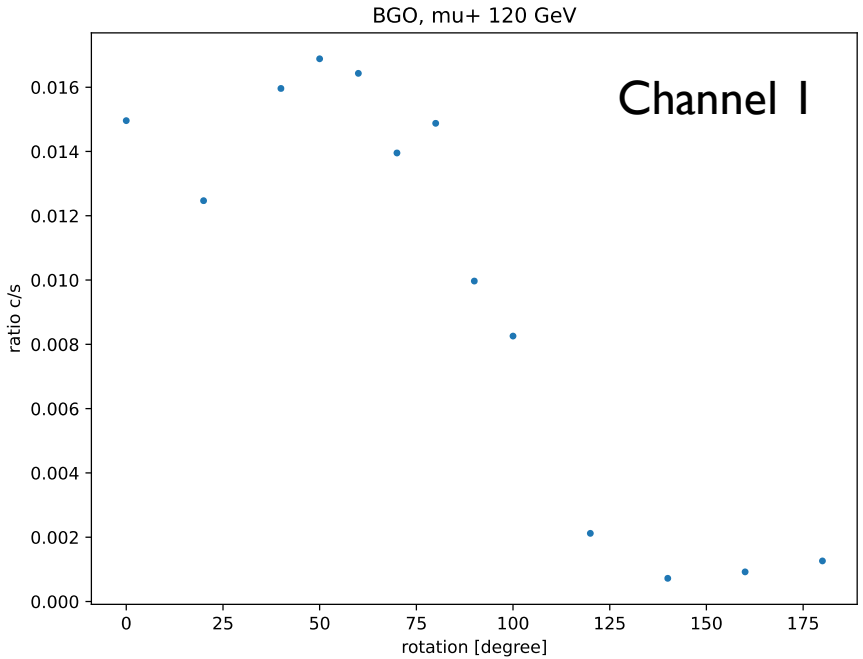
- mu+ at 120 GeV, σ_{beam} = 0.25 cm, 1k events

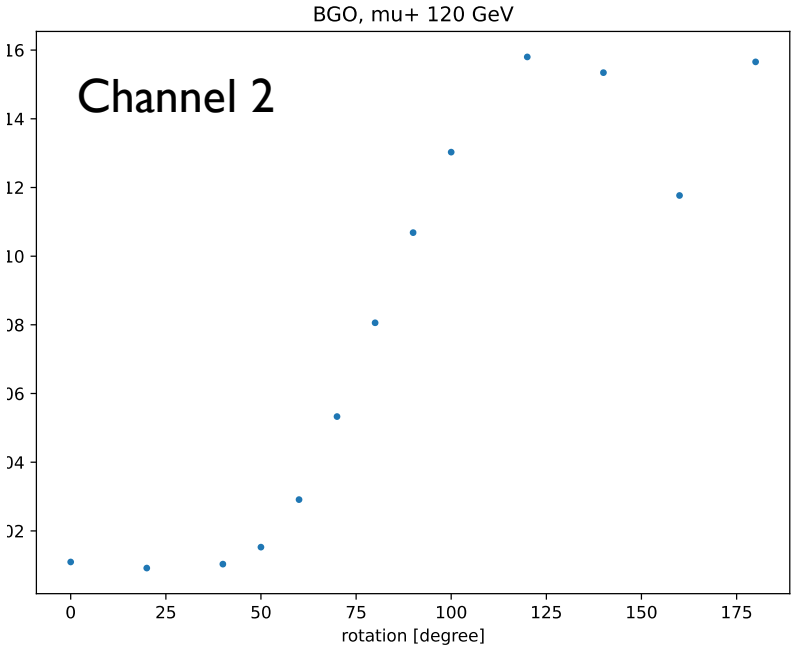




AVERAGE C/S IN SIPM: FILTER

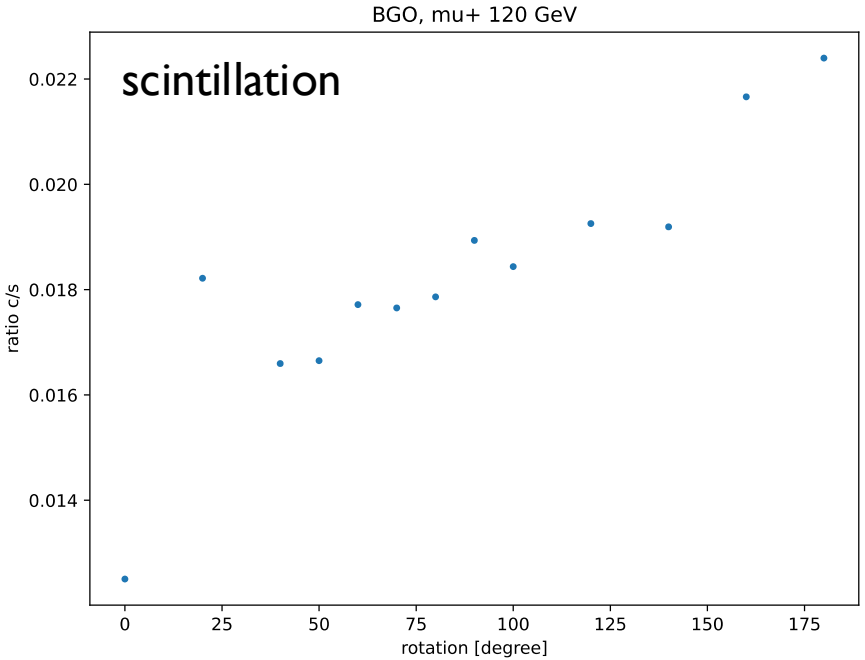
- mu+ at 120 GeV, σ_{beam} = 0.25 cm, 100 events

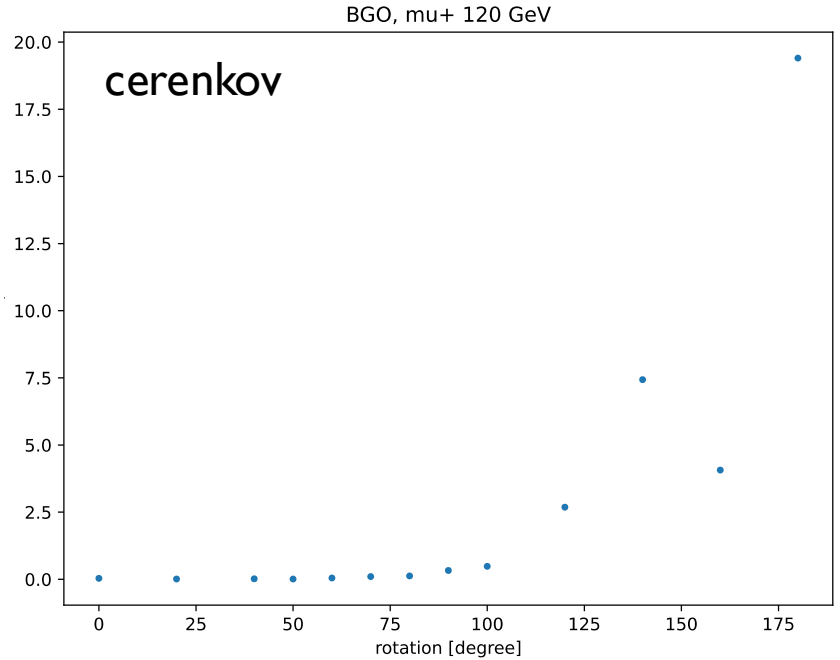




AVERAGE CH2/CH1 IN SIPM: FILTER

- mu+ at 120 GeV, σ_{beam} = 0.25 cm, 100 events



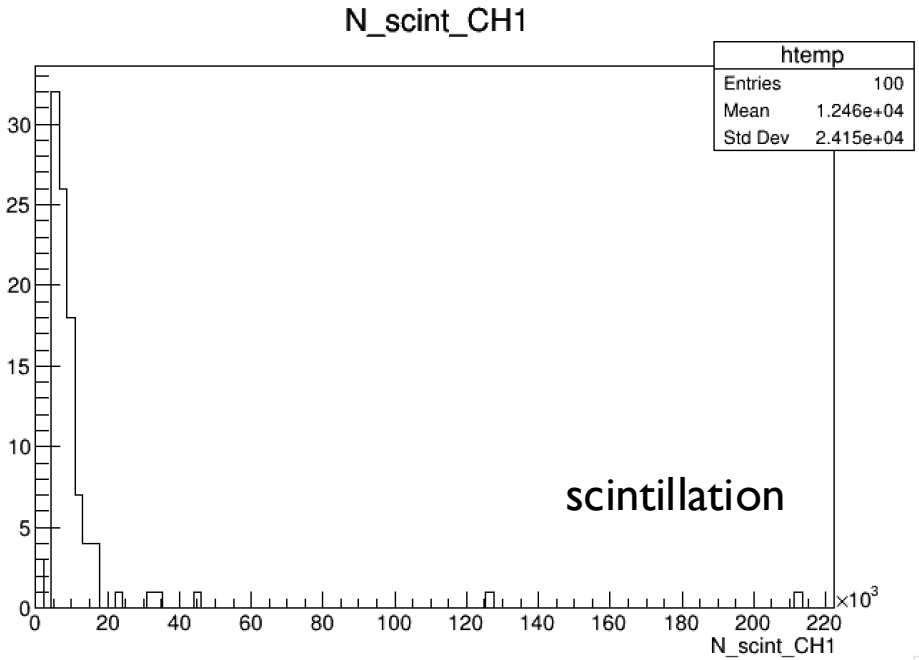


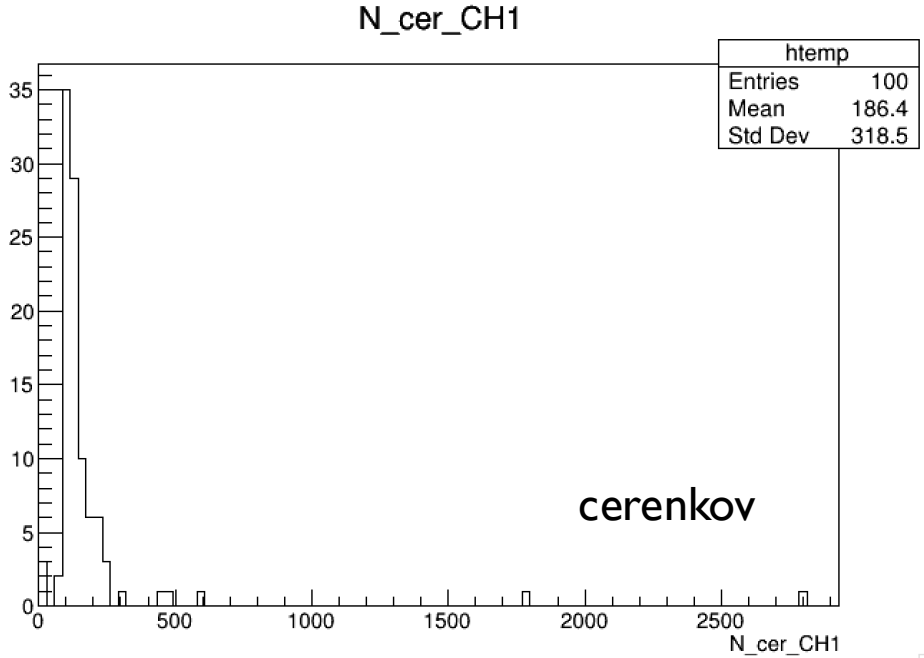
Backup

CHANNEL I

PHOTON COUNTING IN SIPM CHANNEL 1: **0 DEGREE**

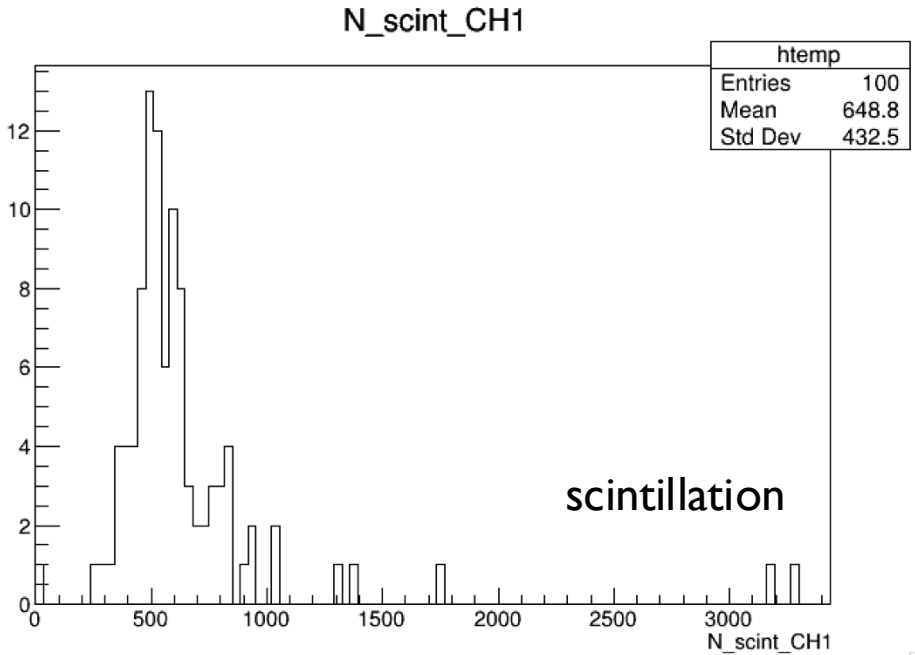
- mu+ at 120 GeV, σ_{beam} = 0.25 cm, 100 events

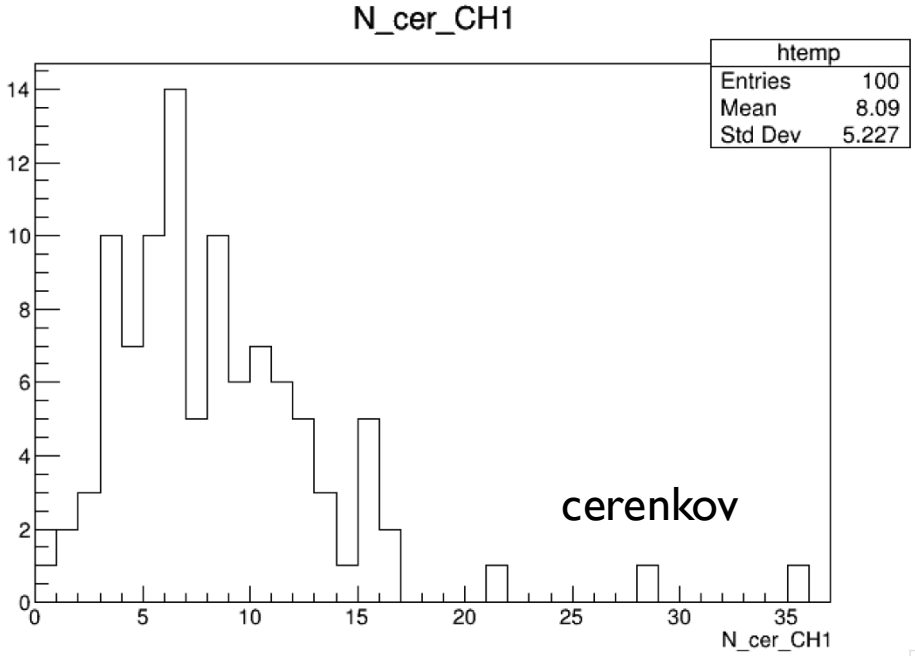




PHOTON COUNTING IN SIPM CHANNEL 1: **20 DEGREE**

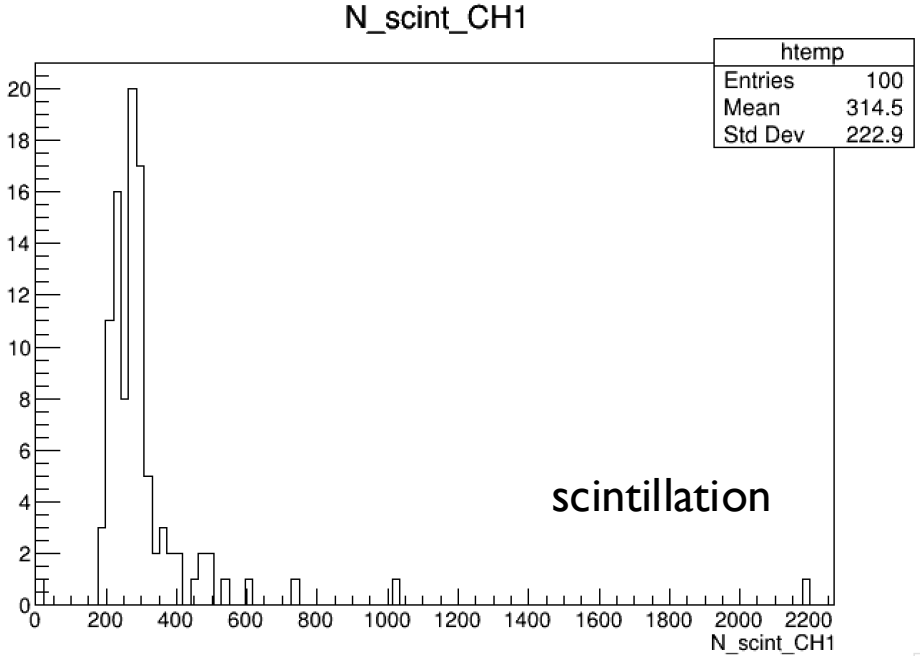
- mu+ at 120 GeV, σ_{beam} = 0.25 cm, 100 events

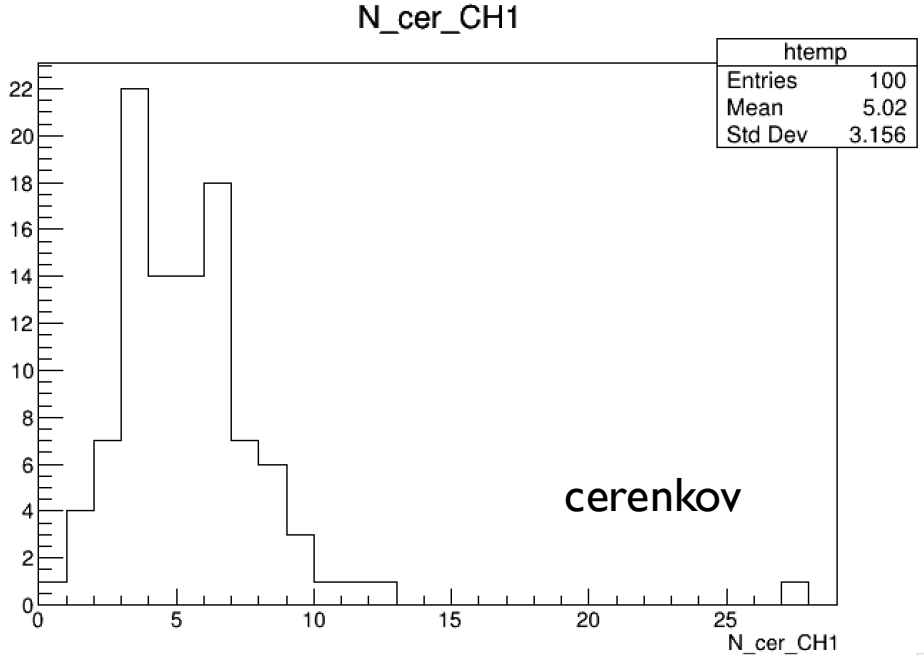




PHOTON COUNTING IN SIPM CHANNEL 1: **40 DEGREE**

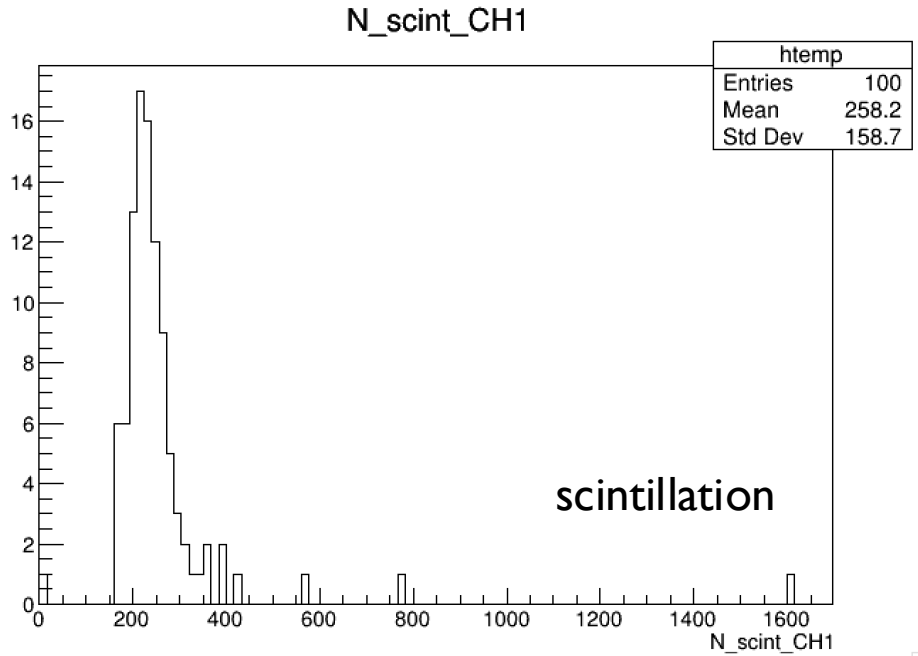
- mu+ at 120 GeV, σ_{beam} = 0.25 cm, 100 events

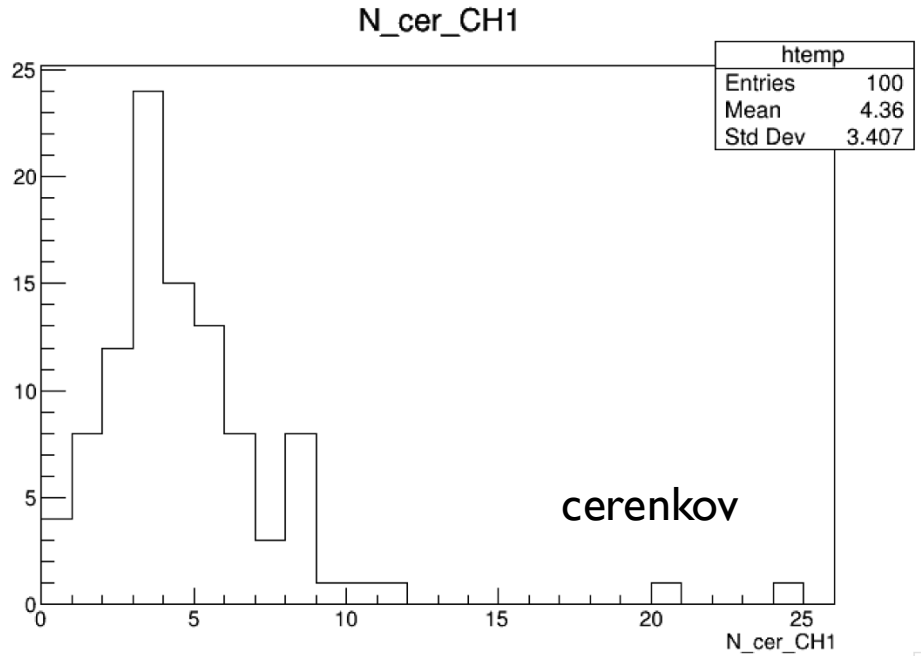




PHOTON COUNTING IN SIPM CHANNEL 1: **50 DEGREE**

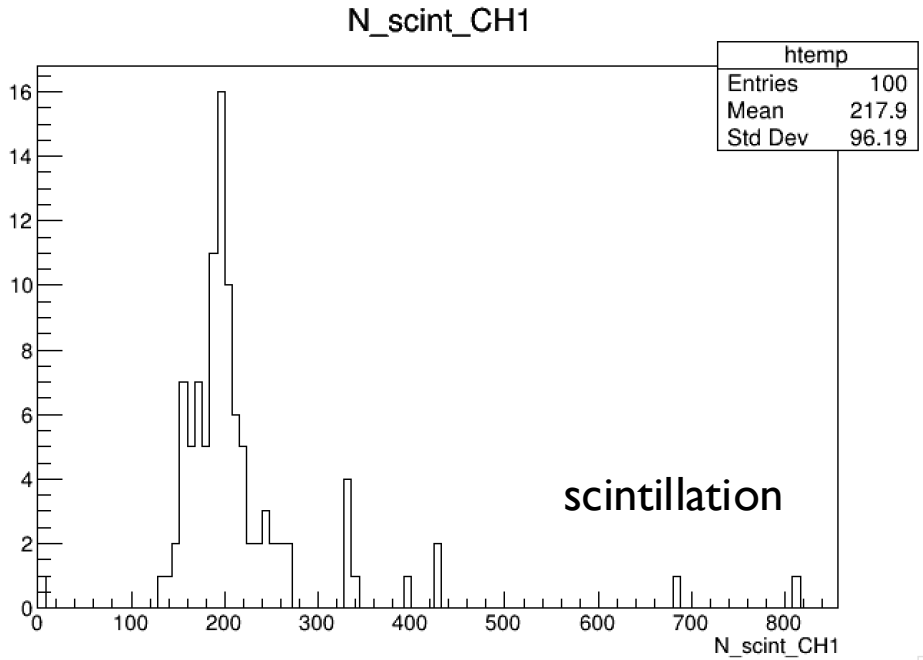
- mu+ at 120 GeV, σ_{beam} = 0.25 cm, 100 events

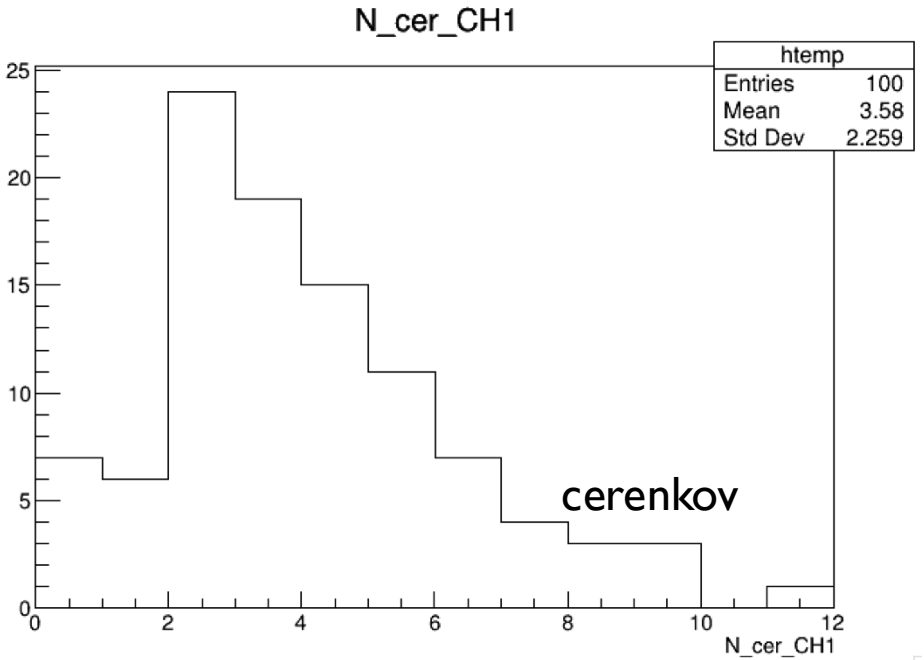




PHOTON COUNTING IN SIPM CHANNEL 1: **60 DEGREE**

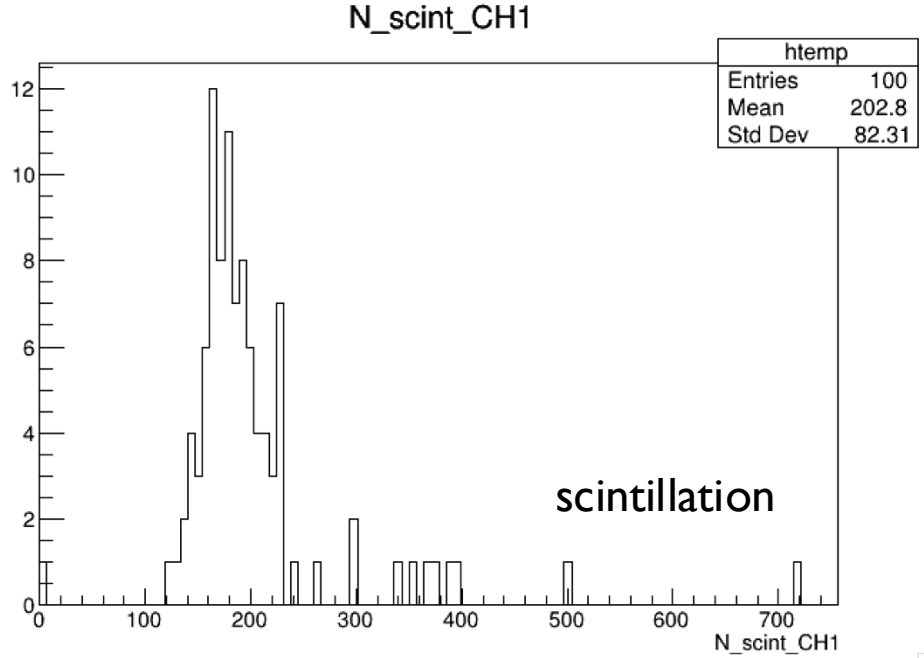
- mu+ at 120 GeV, σ_{beam} = 0.25 cm, 100 events

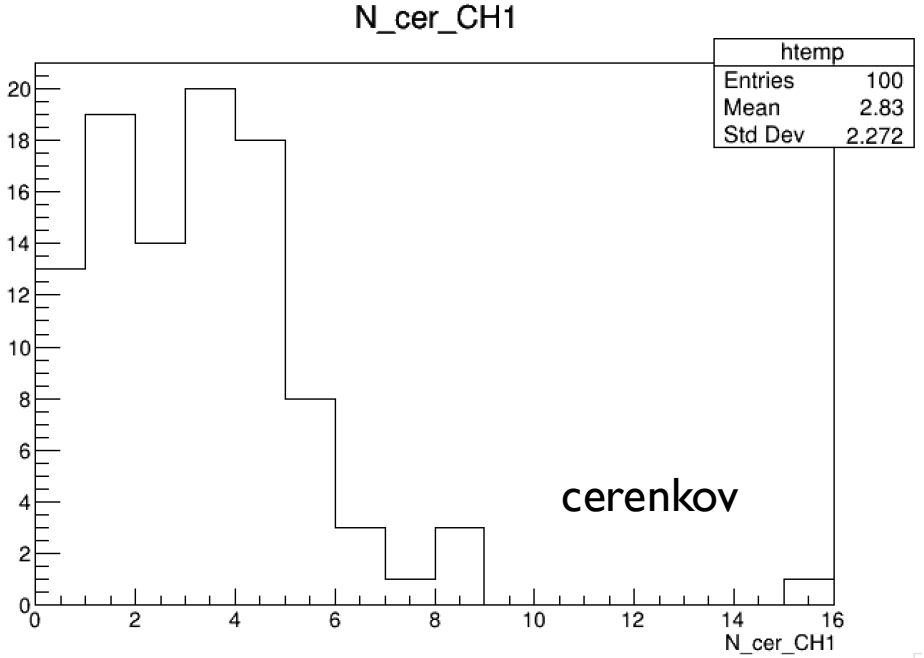




PHOTON COUNTING IN SIPM CHANNEL 1: **70 DEGREE**

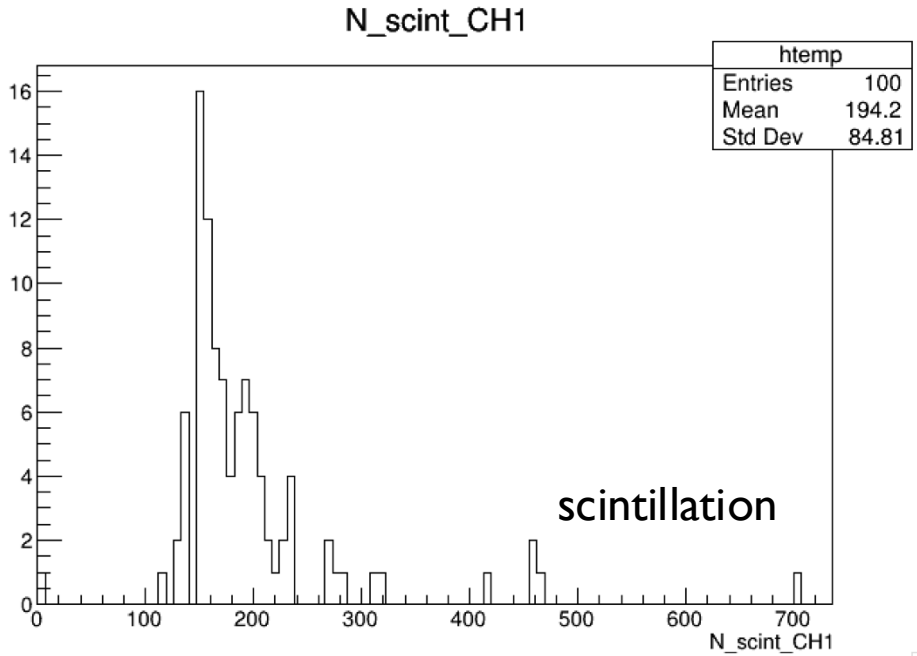
- mu+ at 120 GeV, σ_{beam} = 0.25 cm, 100 events

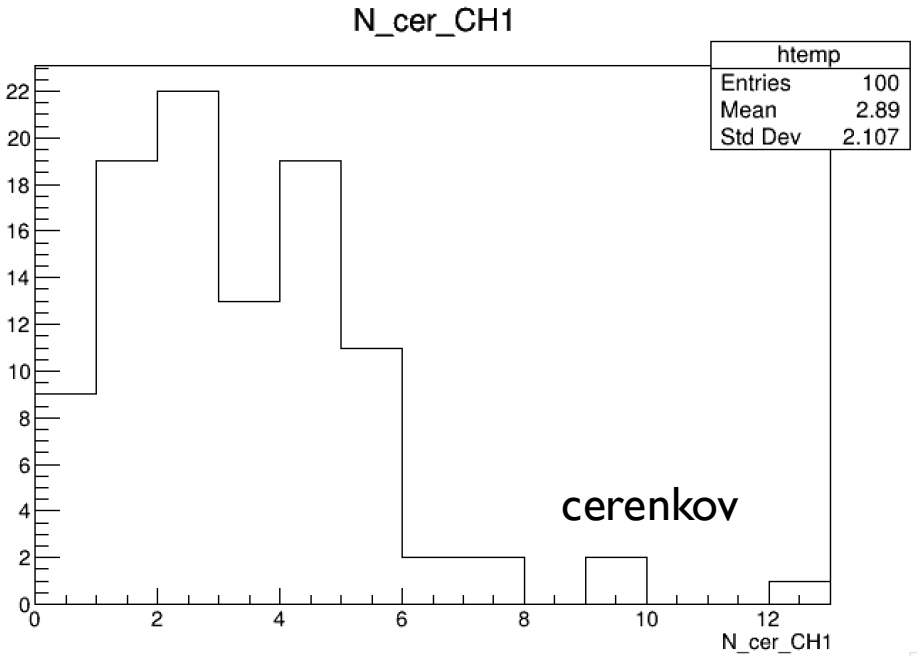




PHOTON COUNTING IN SIPM CHANNEL 1: **80 DEGREE**

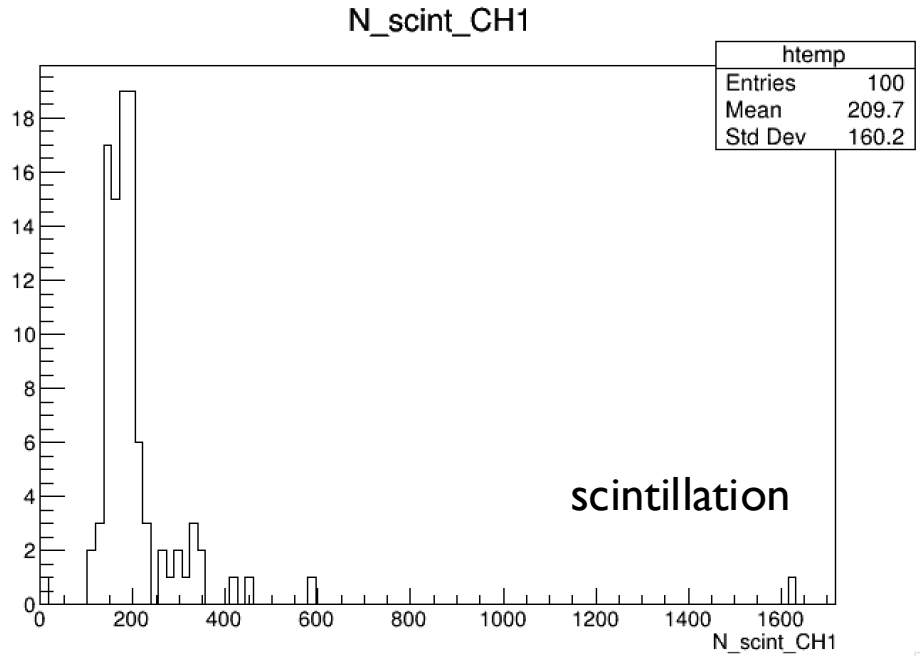
- mu+ at 120 GeV, σ_{beam} = 0.25 cm, 100 events

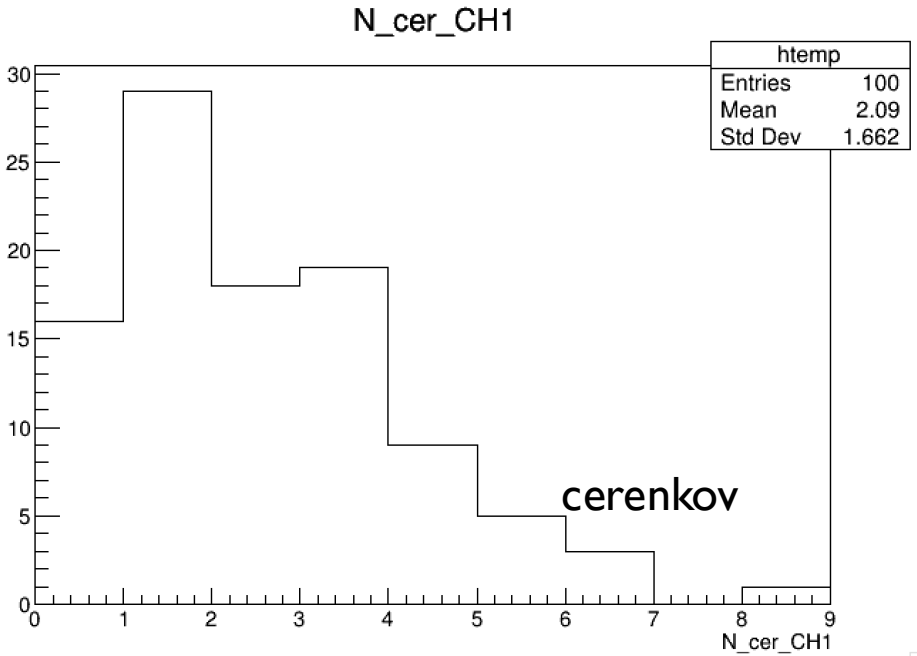




PHOTON COUNTING IN SIPM CHANNEL 1: **90 DEGREE**

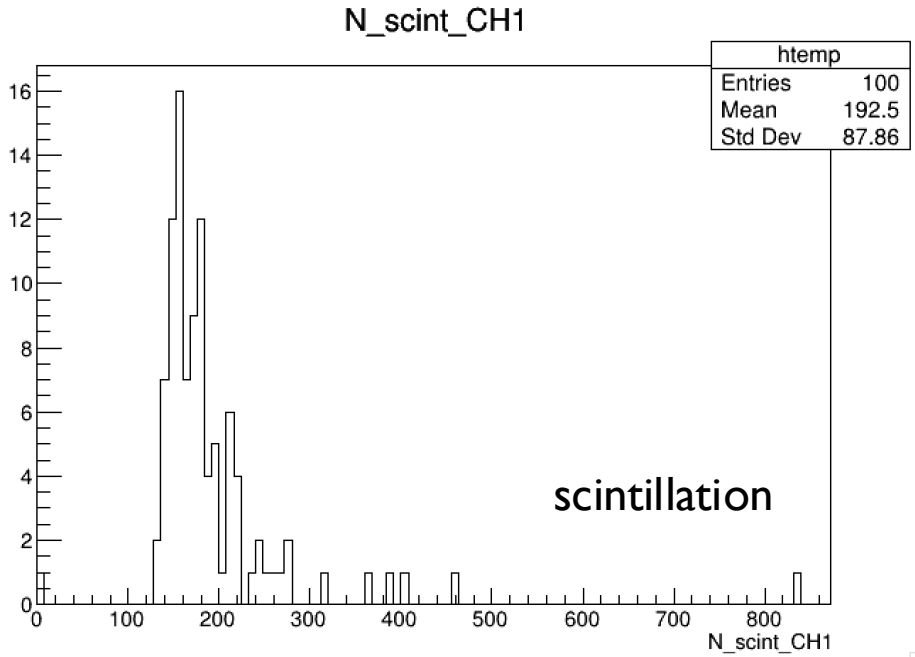
- mu+ at 120 GeV, σ_{beam} = 0.25 cm, 100 events

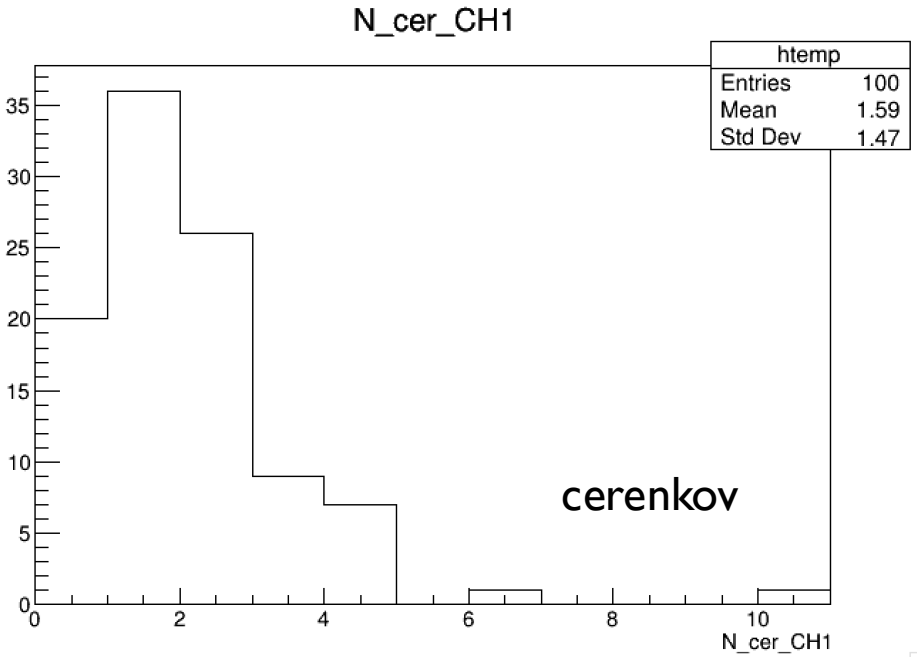




PHOTON COUNTING IN SIPM CHANNEL 1: **100 DEGREE**

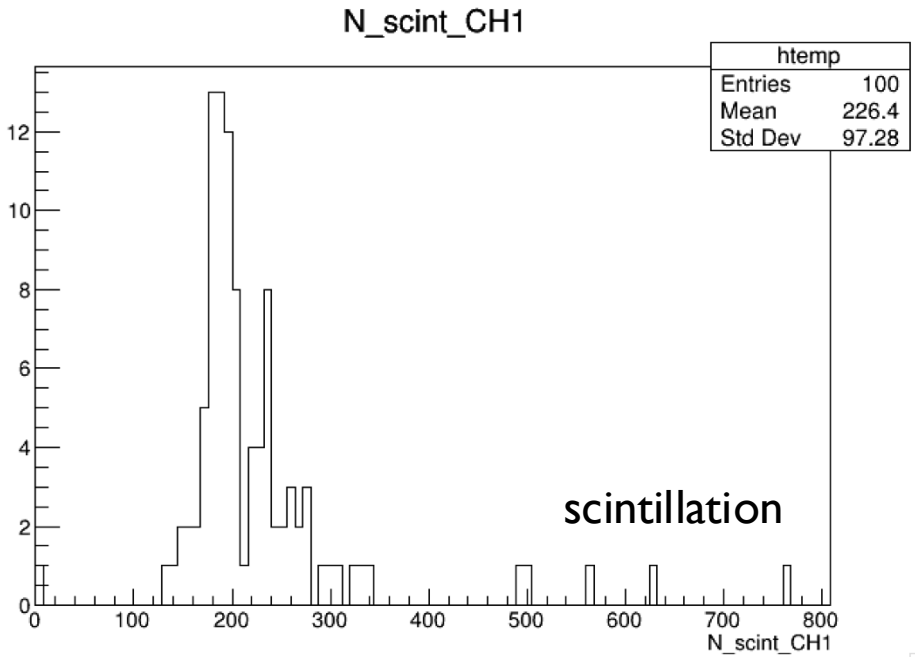
- mu+ at 120 GeV, σ_{beam} = 0.25 cm, 100 events

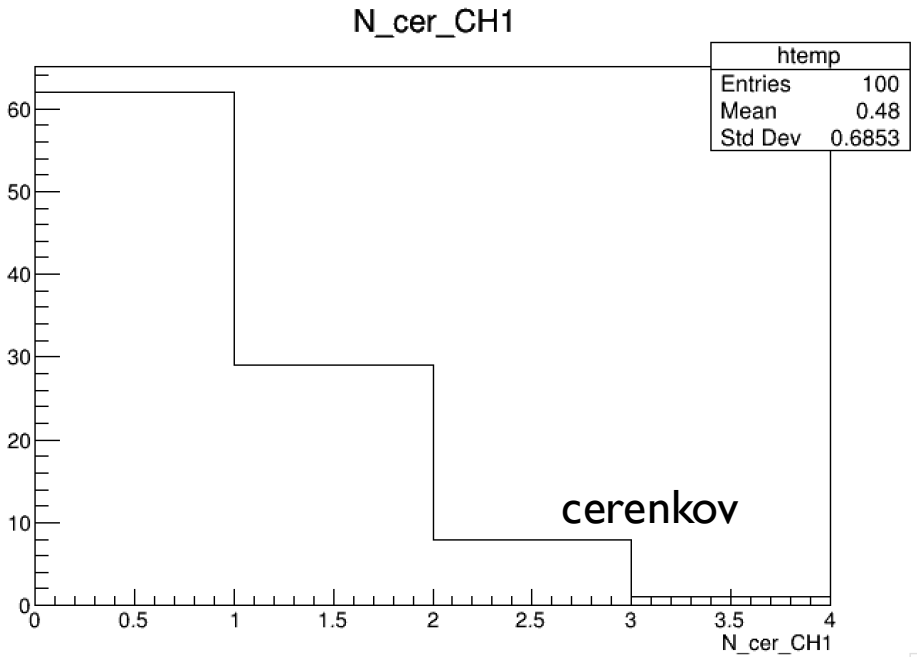




PHOTON COUNTING IN SIPM CHANNEL 1: **120 DEGREE**

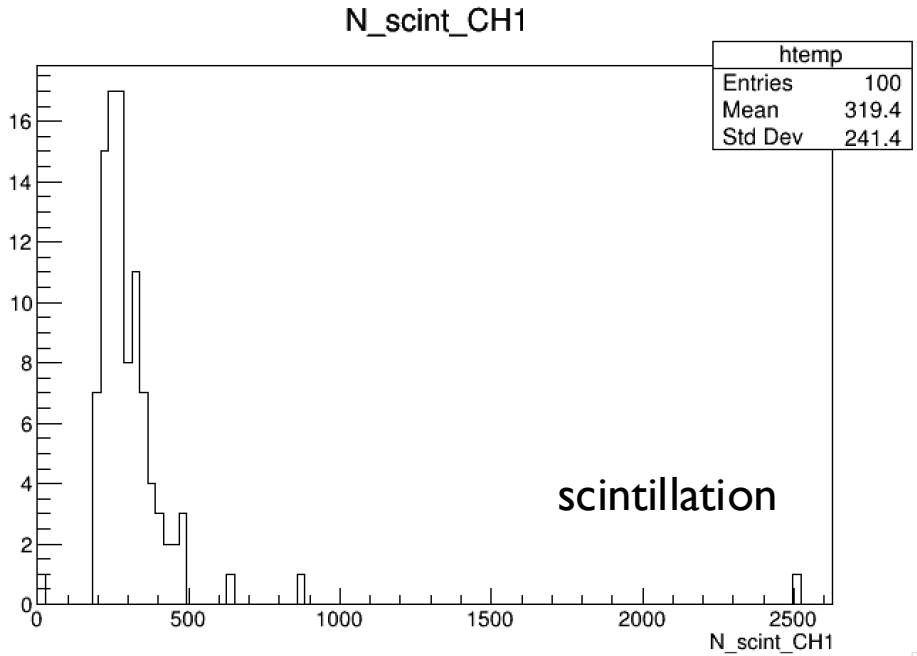
- mu+ at 120 GeV, σ_{beam} = 0.25 cm, 100 events

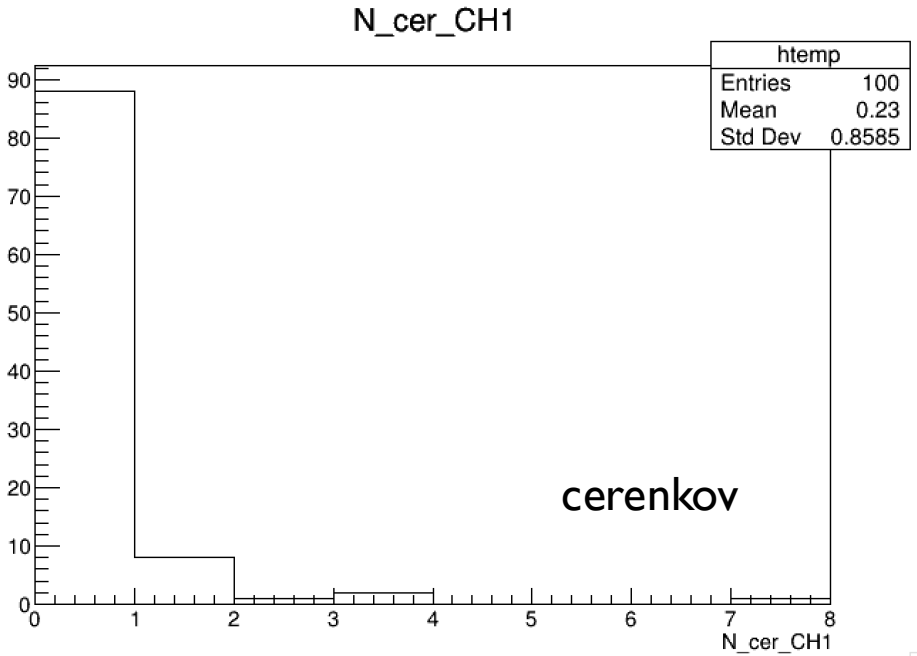




PHOTON COUNTING IN SIPM CHANNEL 1: **140 DEGREE**

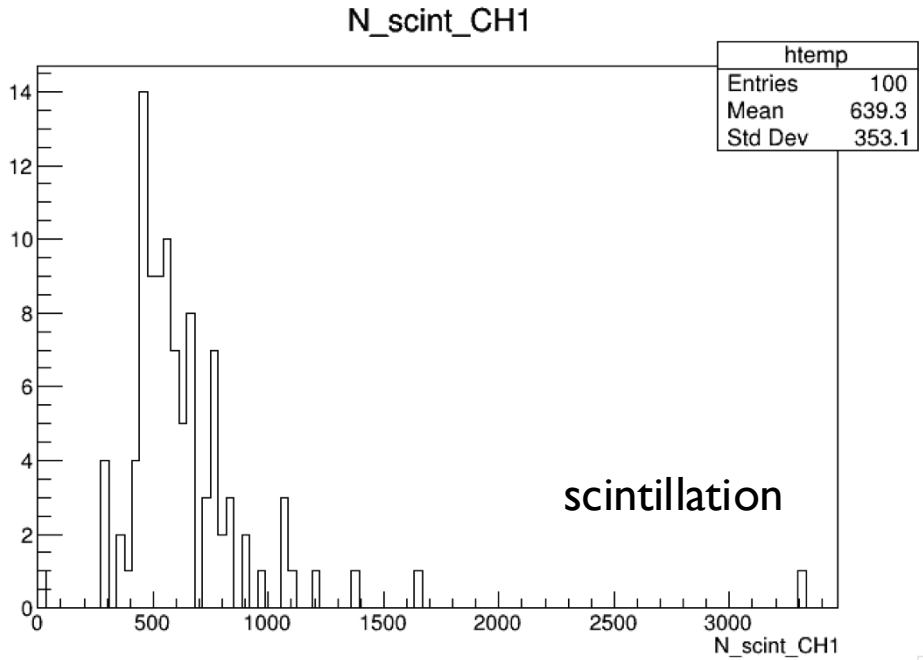
- mu+ at 120 GeV, σ_{beam} = 0.25 cm, 100 events

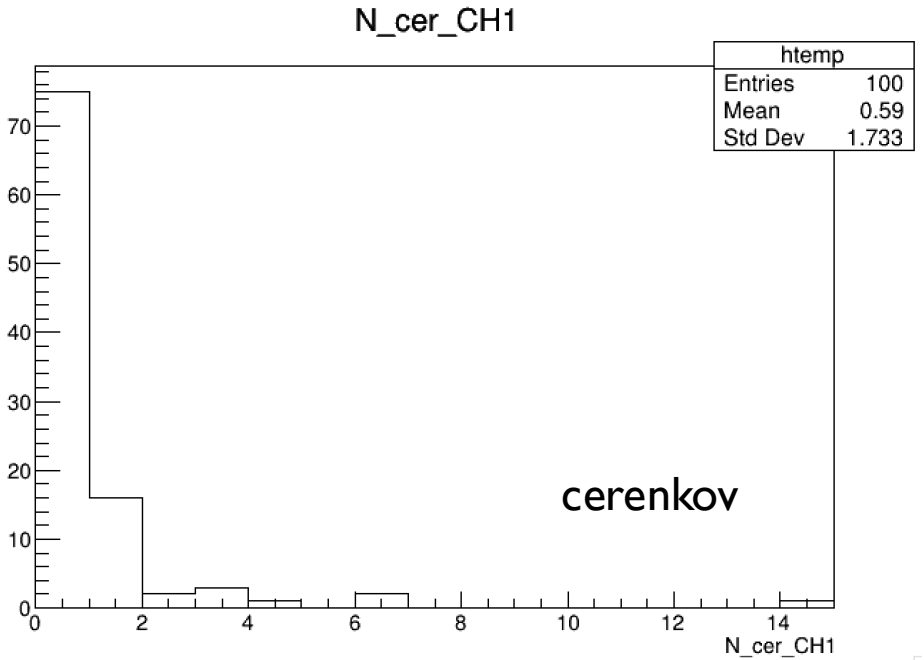




PHOTON COUNTING IN SIPM CHANNEL 1: **160 DEGREE**

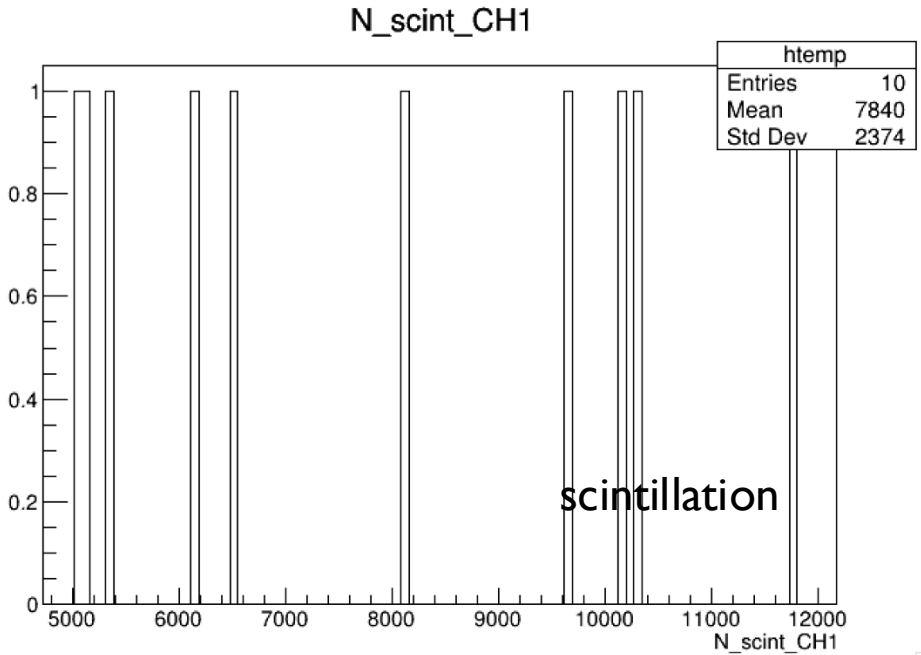
- mu+ at 120 GeV, σ_{beam} = 0.25 cm, 100 events

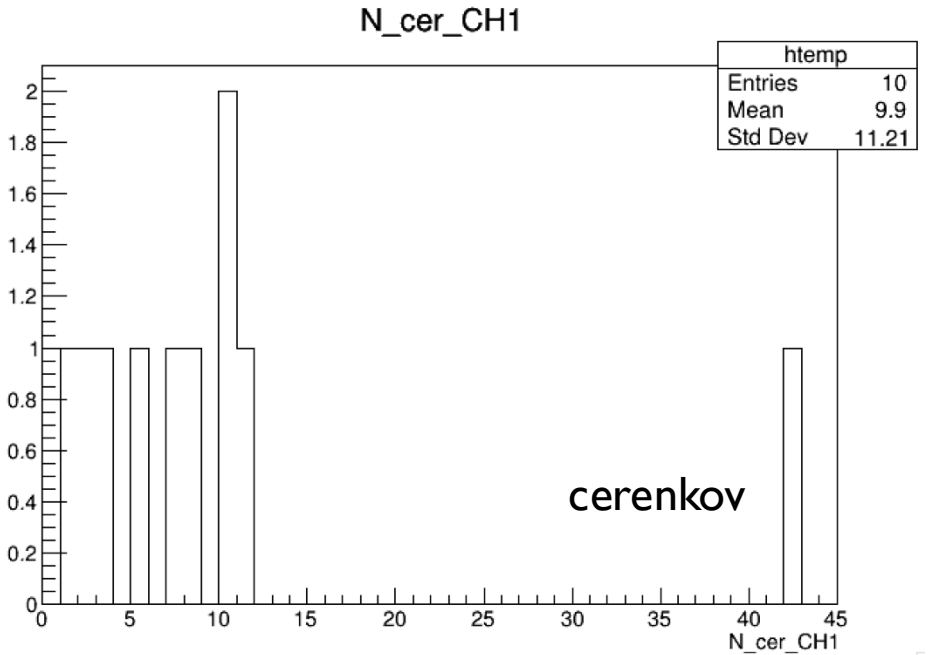




PHOTON COUNTING IN SIPM CHANNEL 1: **180 DEGREE**

- mu+ at 120 GeV, σ_{beam} = 0.25 cm, 10 events

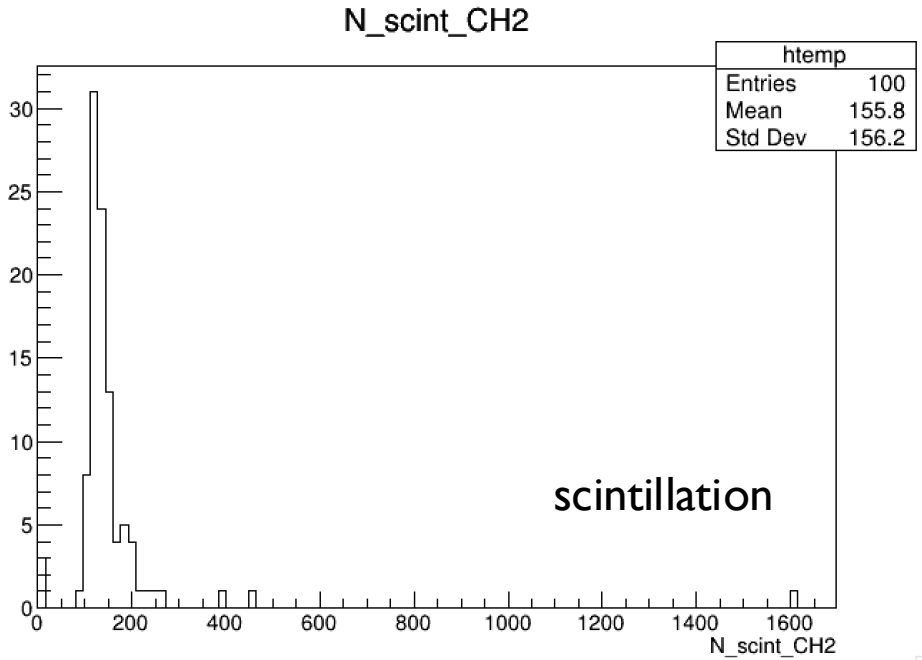


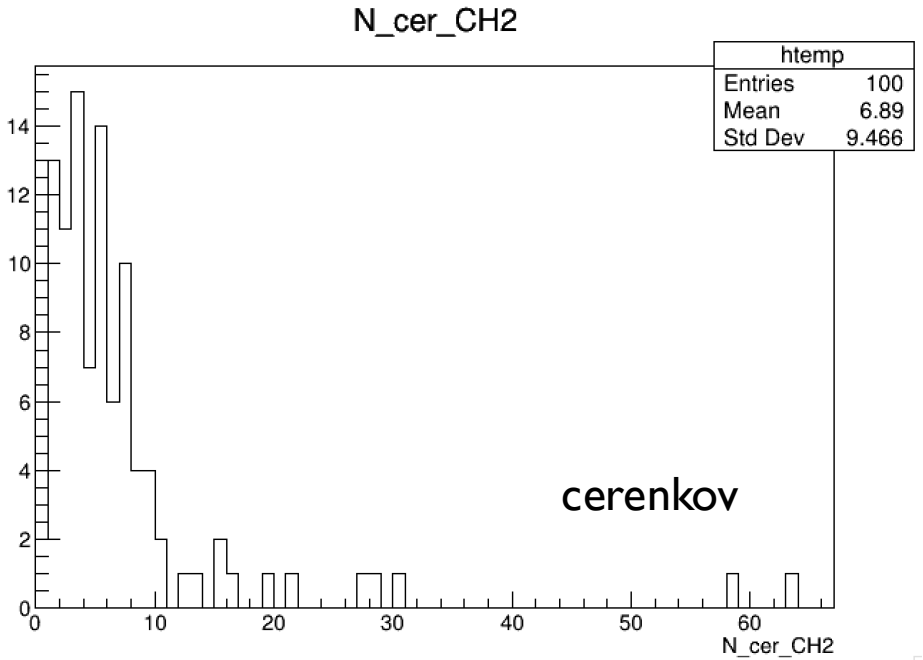


CHANNEL I

PHOTON COUNTING IN SIPM CHANNEL 1: **0 DEGREE**

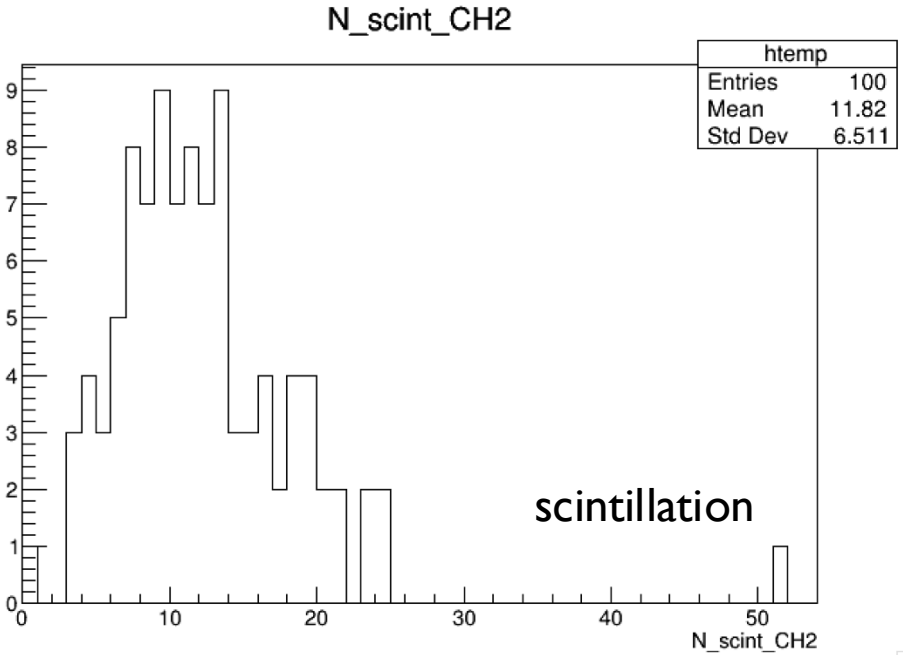
- mu+ at 120 GeV, σ_{beam} = 0.25 cm, 100 events

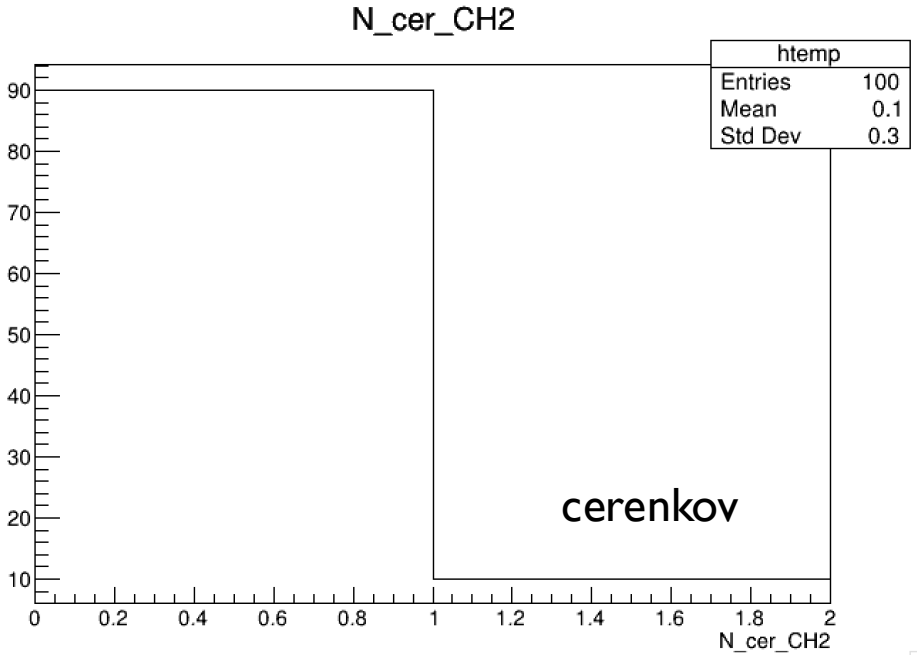




PHOTON COUNTING IN SIPM CHANNEL 1: **20 DEGREE**

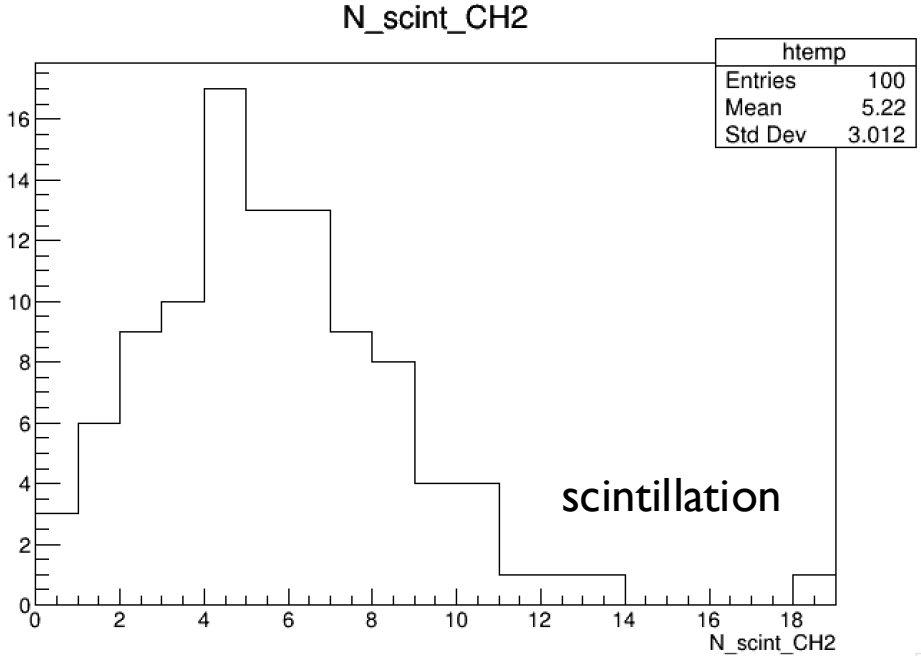
- mu+ at 120 GeV, σ_{beam} = 0.25 cm, 100 events

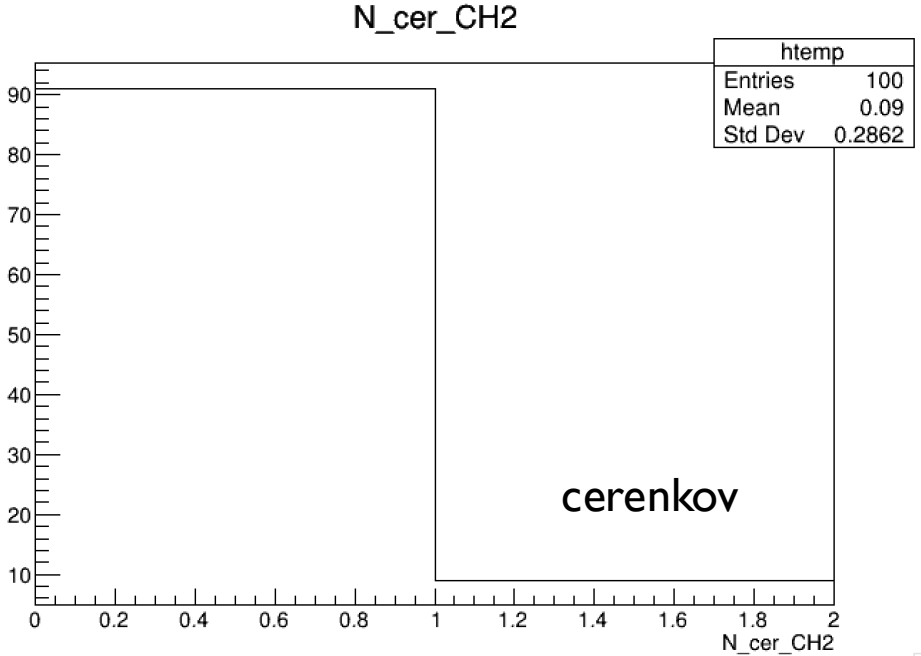




PHOTON COUNTING IN SIPM CHANNEL 1: **40 DEGREE**

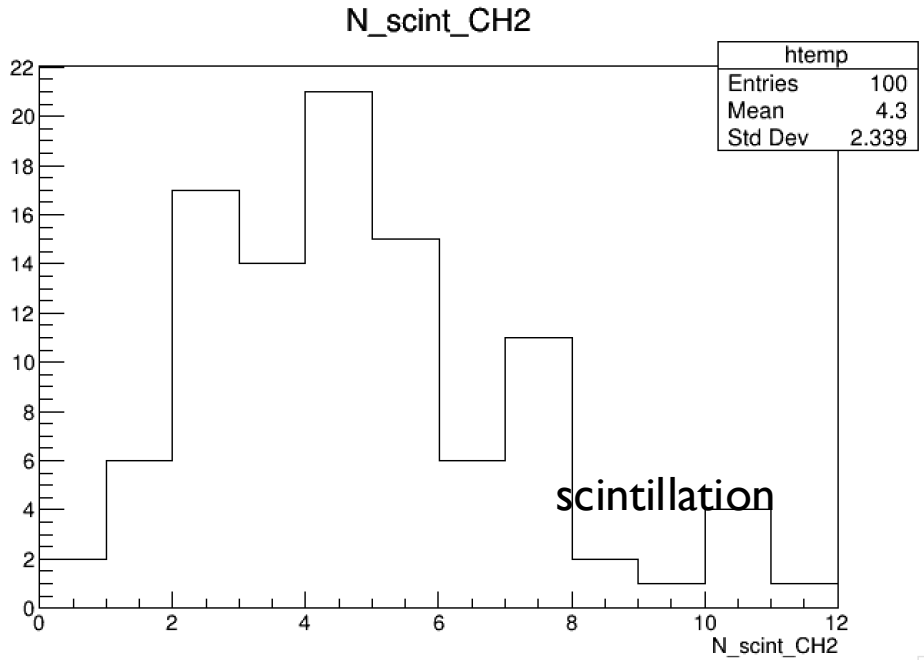
- mu+ at 120 GeV, σ_{beam} = 0.25 cm, 100 events

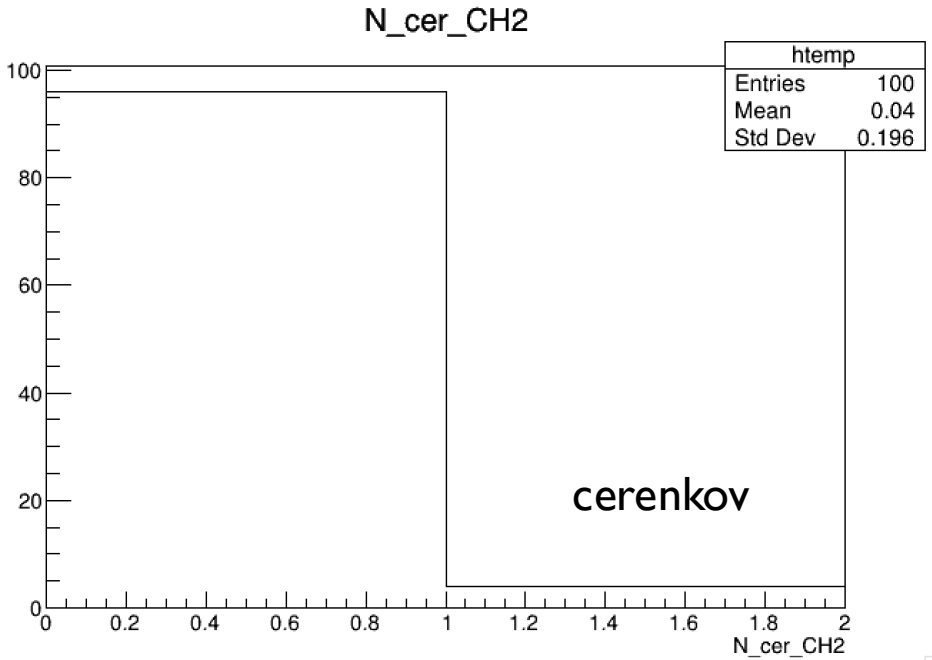




PHOTON COUNTING IN SIPM CHANNEL 1: **50 DEGREE**

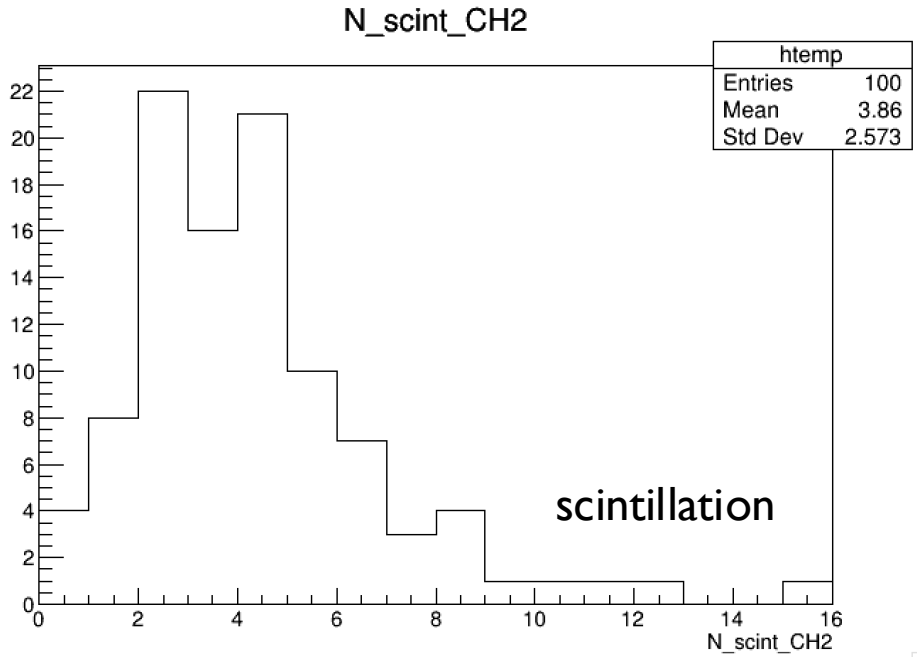
- mu+ at 120 GeV, σ_{beam} = 0.25 cm, 100 events

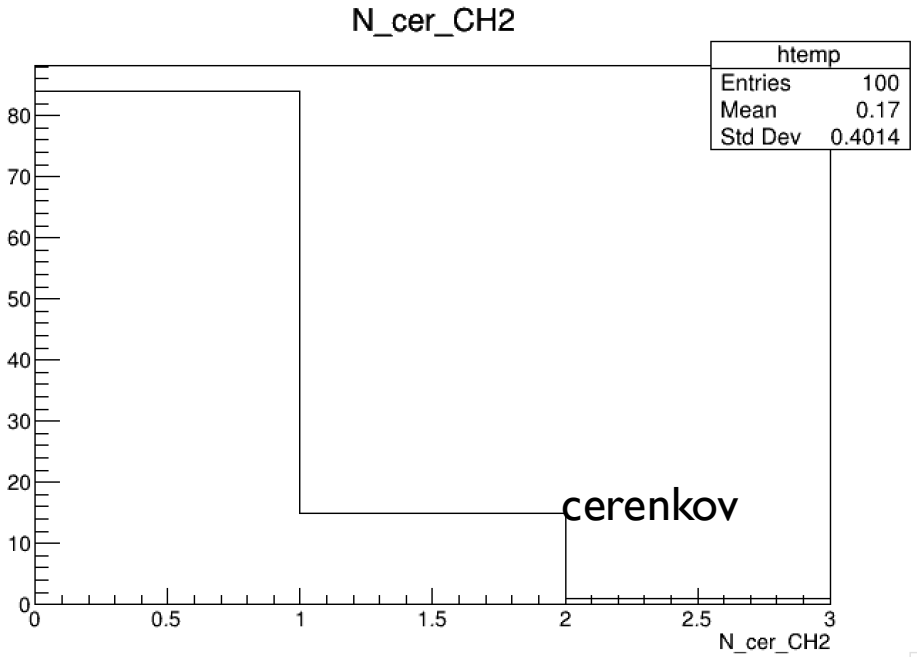




PHOTON COUNTING IN SIPM CHANNEL 1: **60 DEGREE**

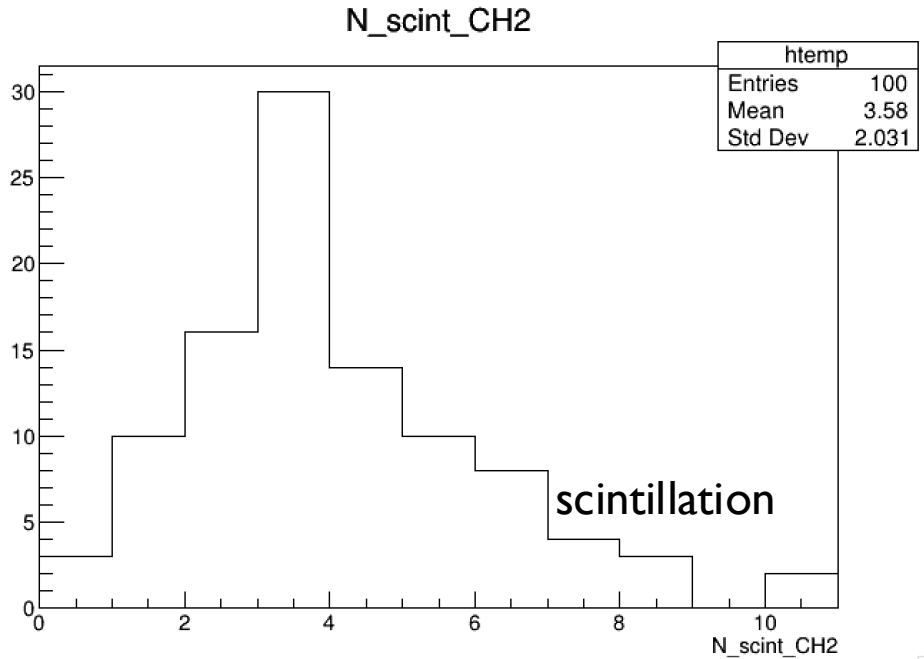
- mu+ at 120 GeV, σ_{beam} = 0.25 cm, 100 events

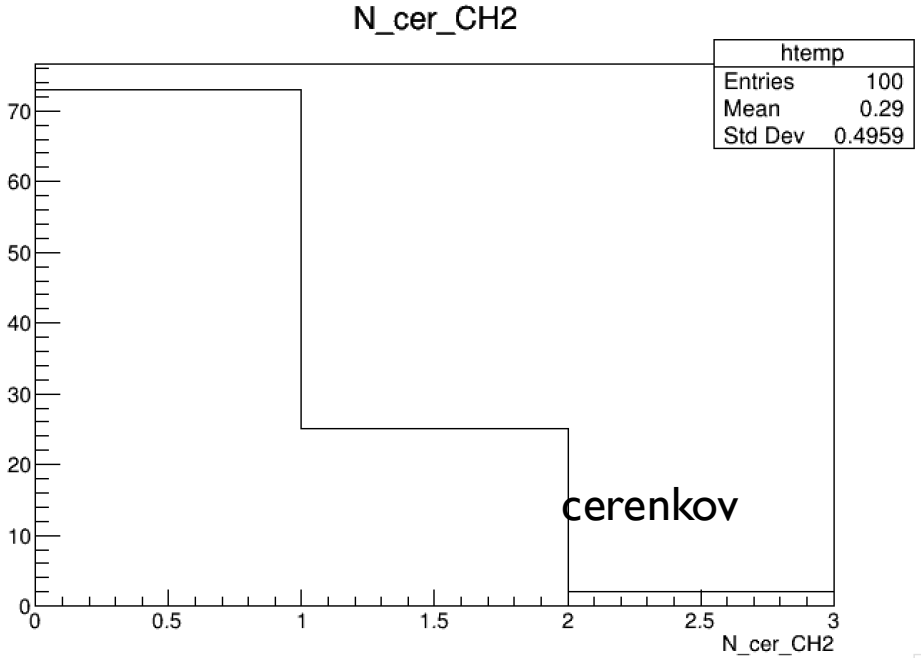




PHOTON COUNTING IN SIPM CHANNEL 1: **70 DEGREE**

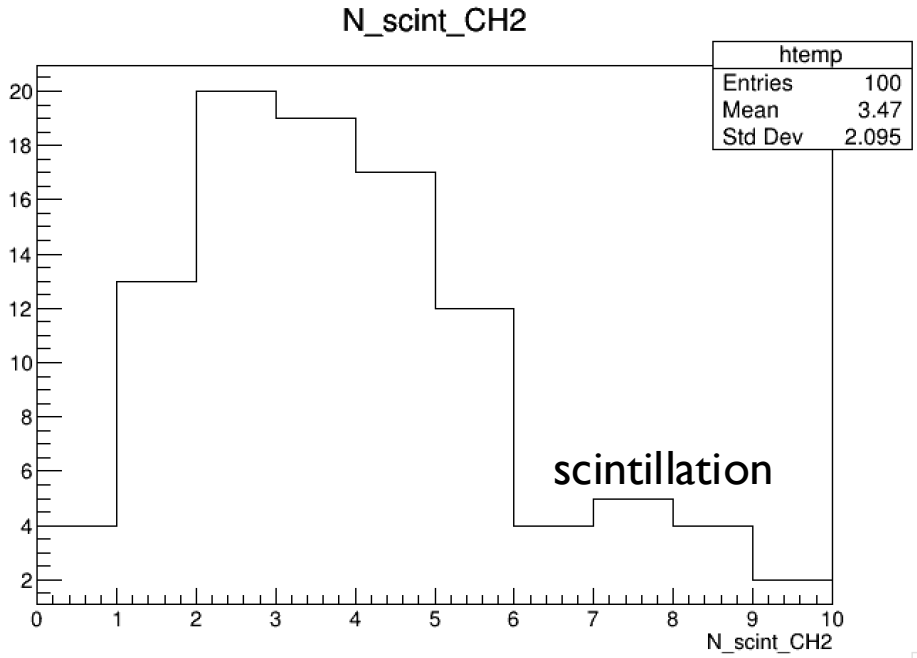
- mu+ at 120 GeV, σ_{beam} = 0.25 cm, 100 events

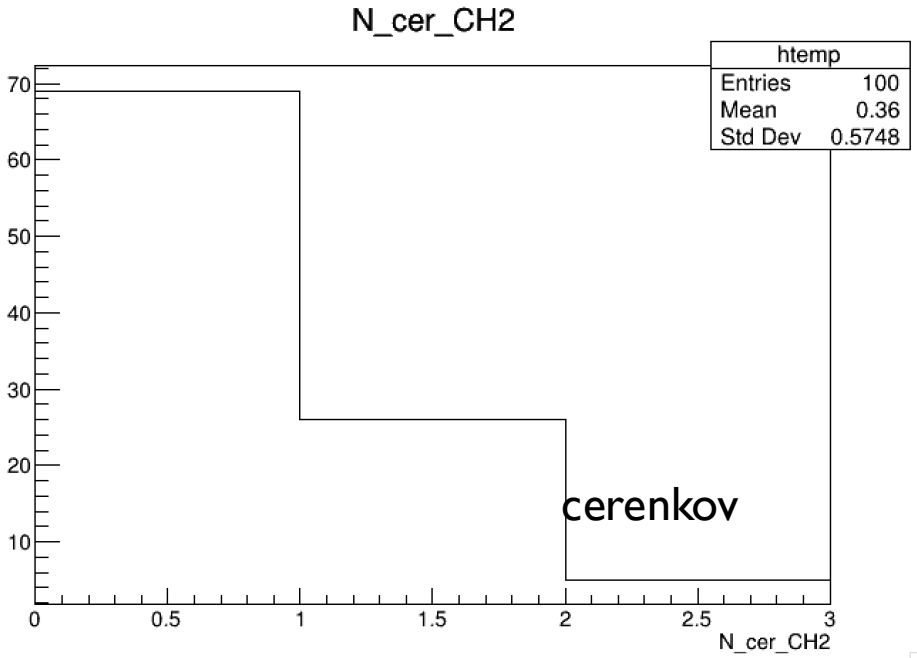




PHOTON COUNTING IN SIPM CHANNEL 1: **80 DEGREE**

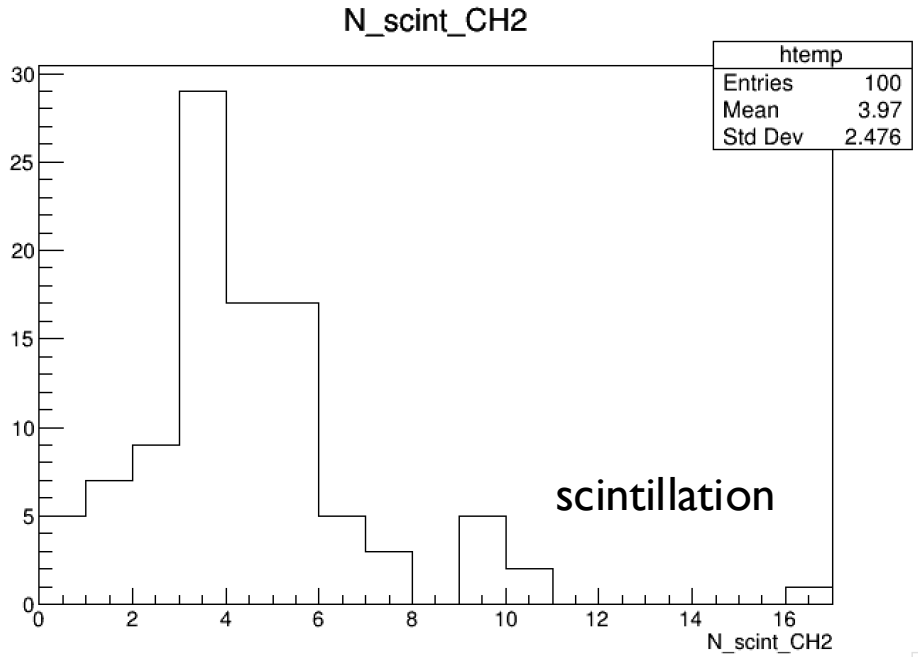
- mu+ at 120 GeV, σ_{beam} = 0.25 cm, 100 events

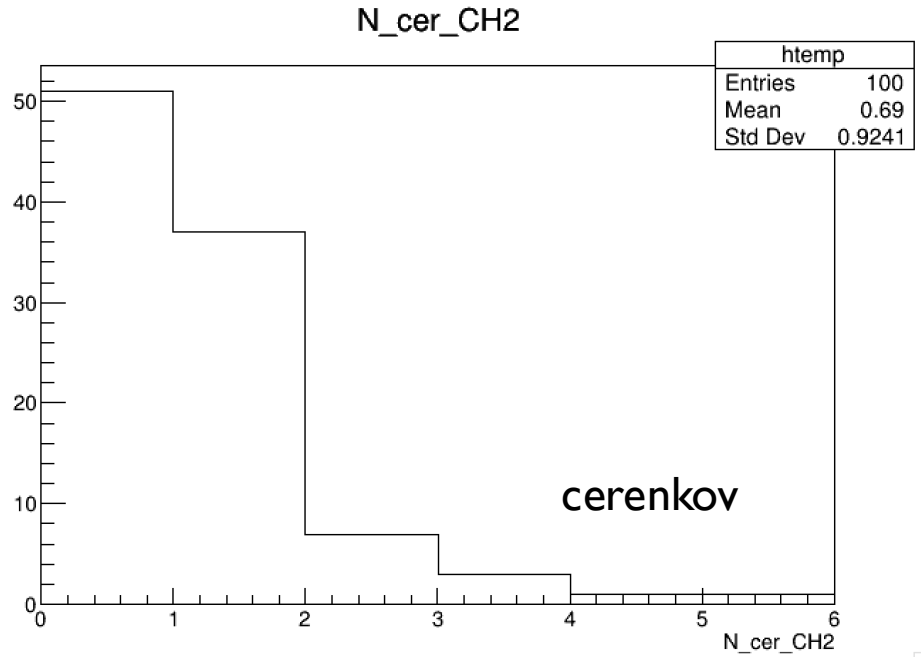




PHOTON COUNTING IN SIPM CHANNEL 1: **90 DEGREE**

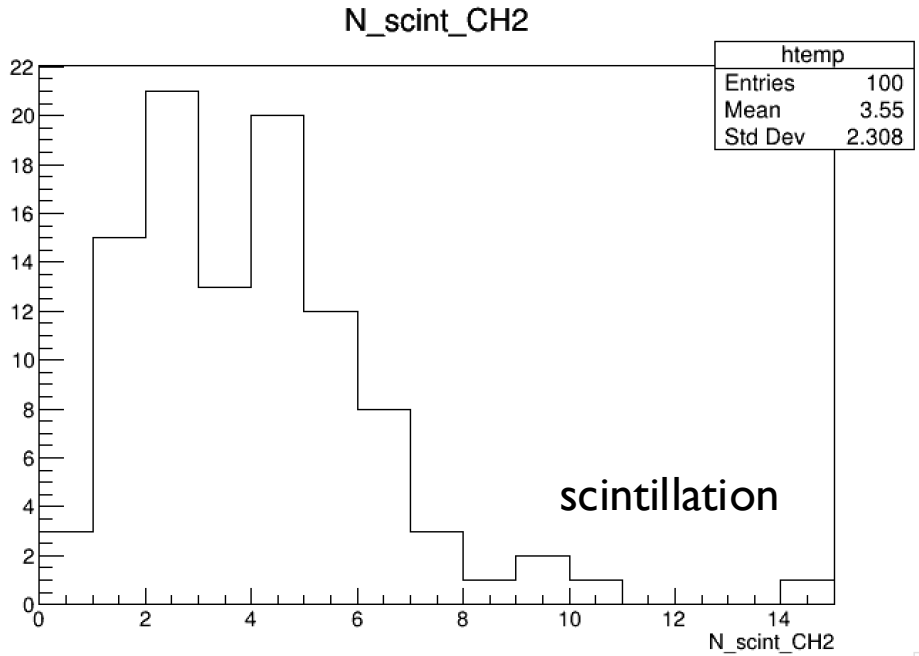
- mu+ at 120 GeV, σ_{beam} = 0.25 cm, 100 events

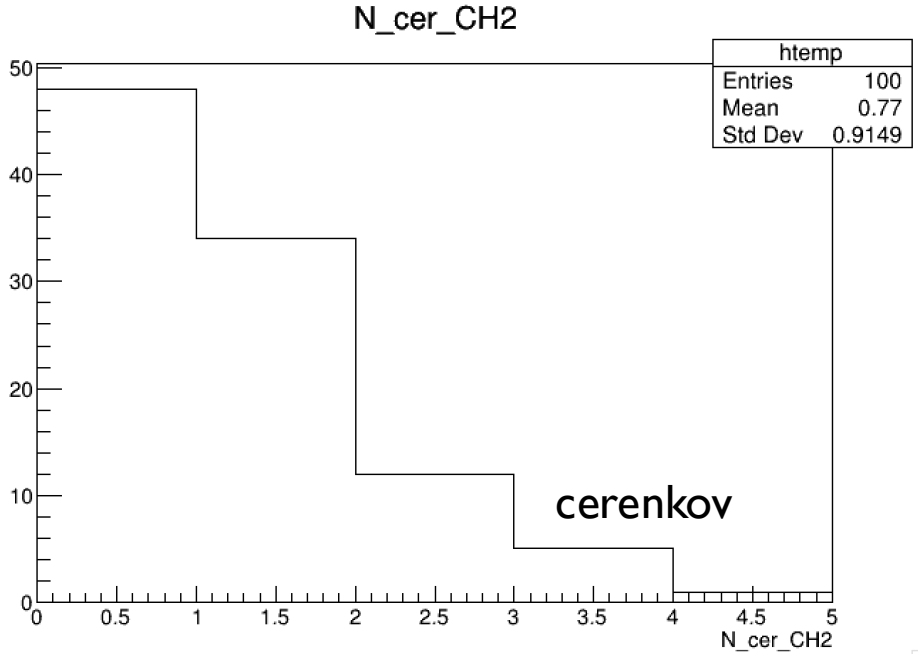




PHOTON COUNTING IN SIPM CHANNEL 1: **100 DEGREE**

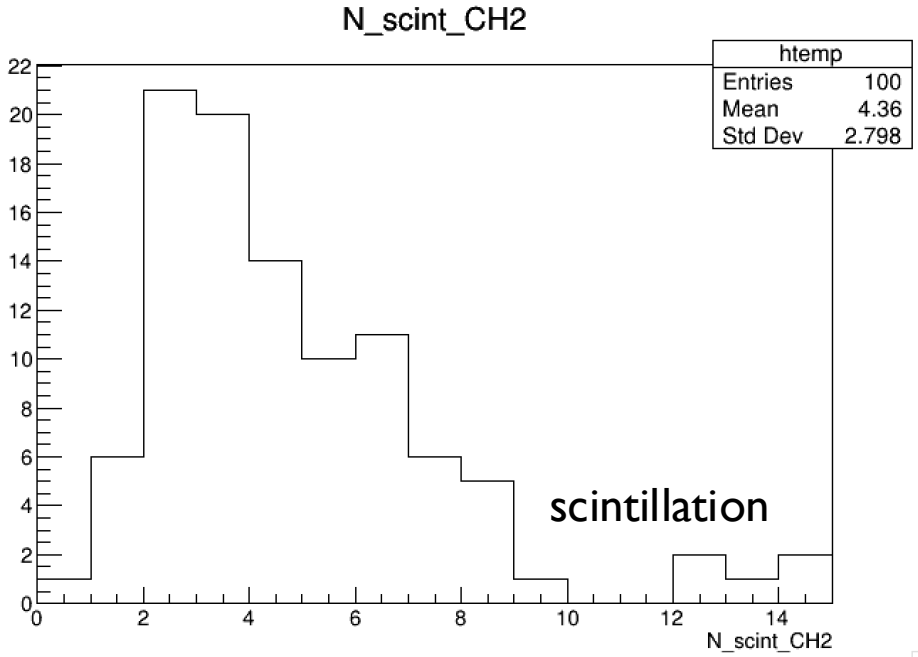
- mu+ at 120 GeV, σ_{beam} = 0.25 cm, 100 events

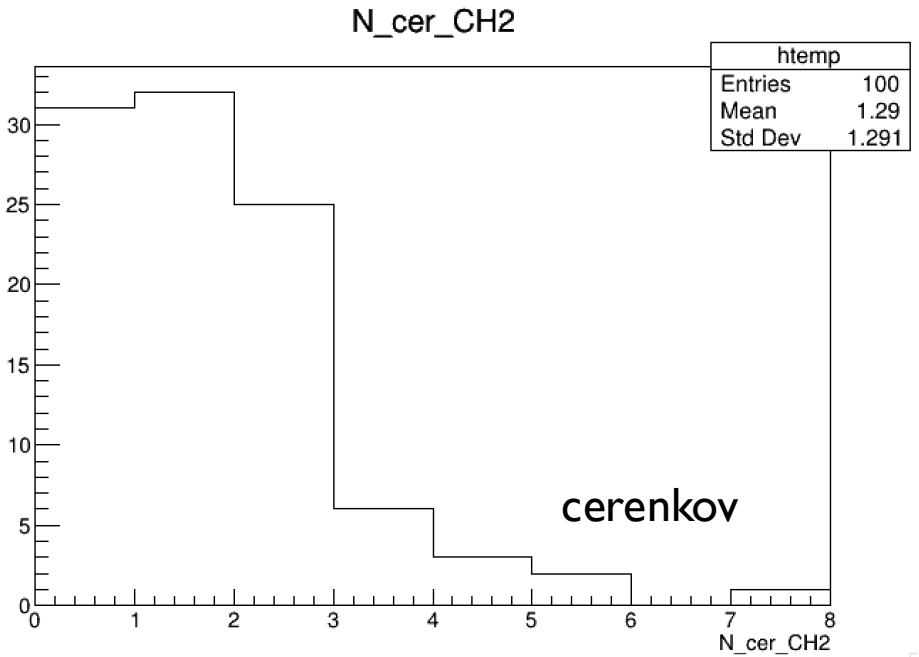




PHOTON COUNTING IN SIPM CHANNEL 1: **120 DEGREE**

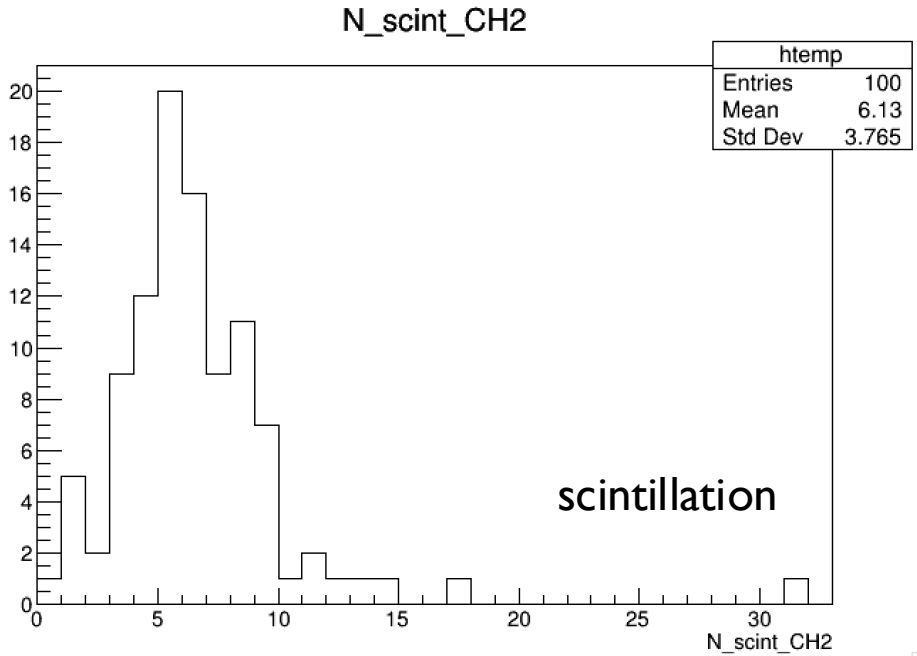
- mu+ at 120 GeV, σ_{beam} = 0.25 cm, 100 events

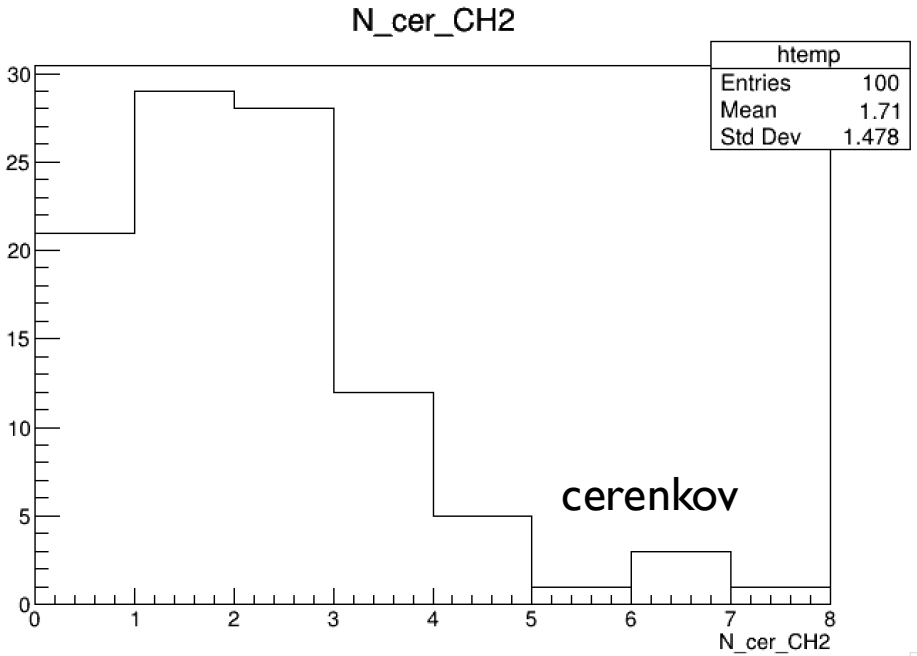




PHOTON COUNTING IN SIPM CHANNEL 1: **140 DEGREE**

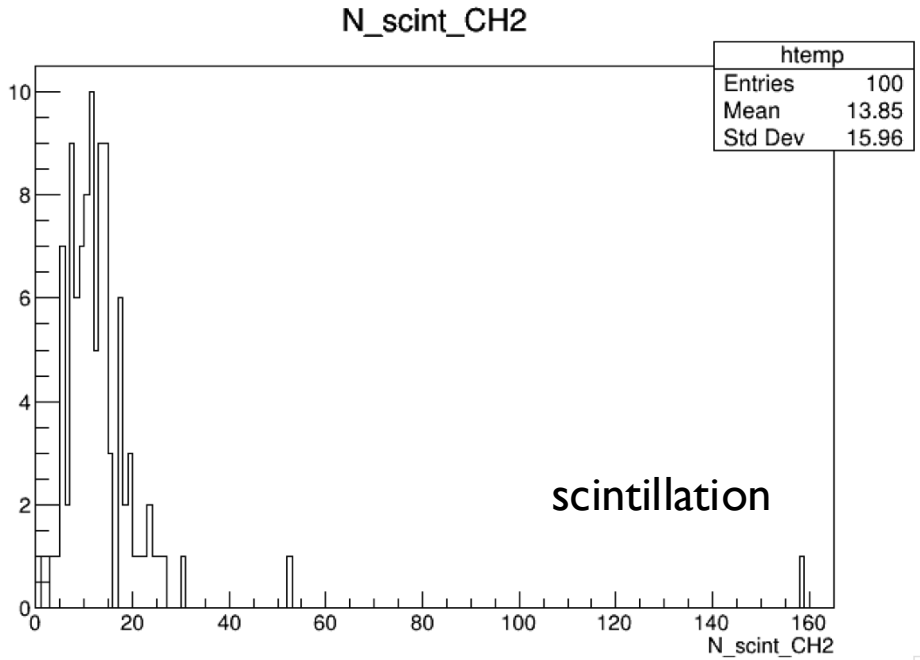
- mu+ at 120 GeV, σ_{beam} = 0.25 cm, 100 events

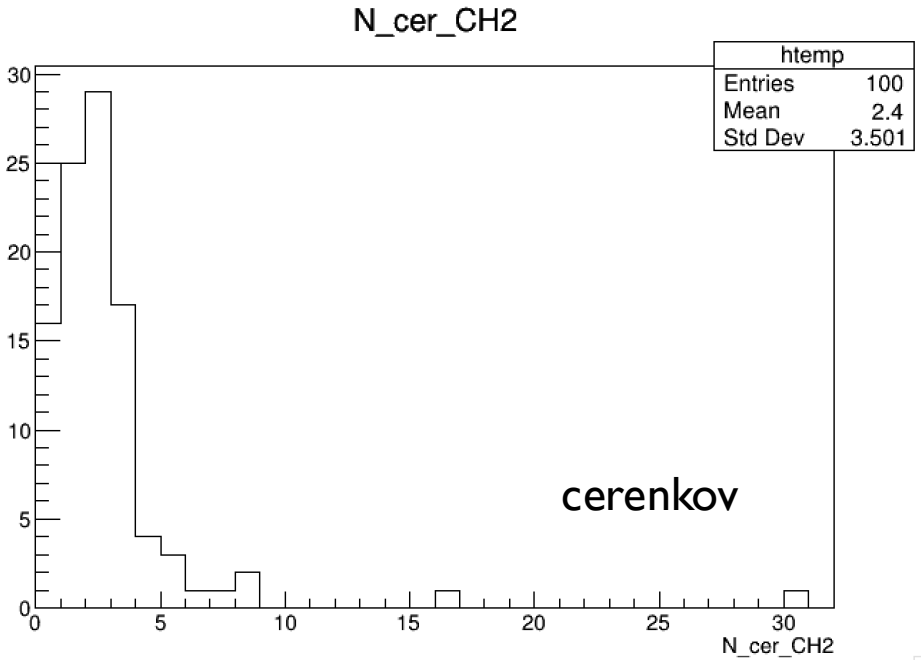




PHOTON COUNTING IN SIPM CHANNEL 1: **160 DEGREE**

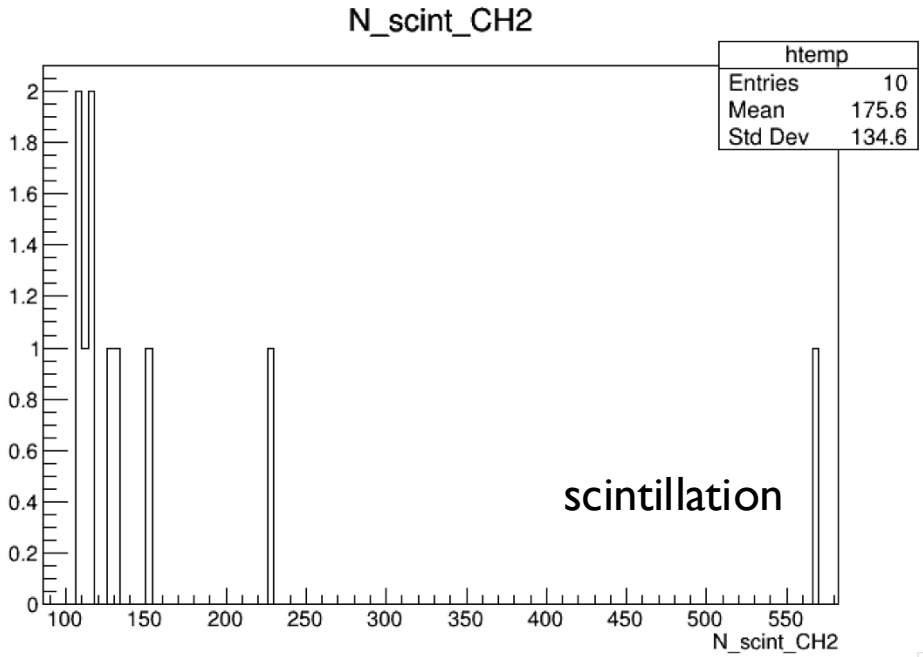
- mu+ at 120 GeV, σ_{beam} = 0.25 cm, 100 events

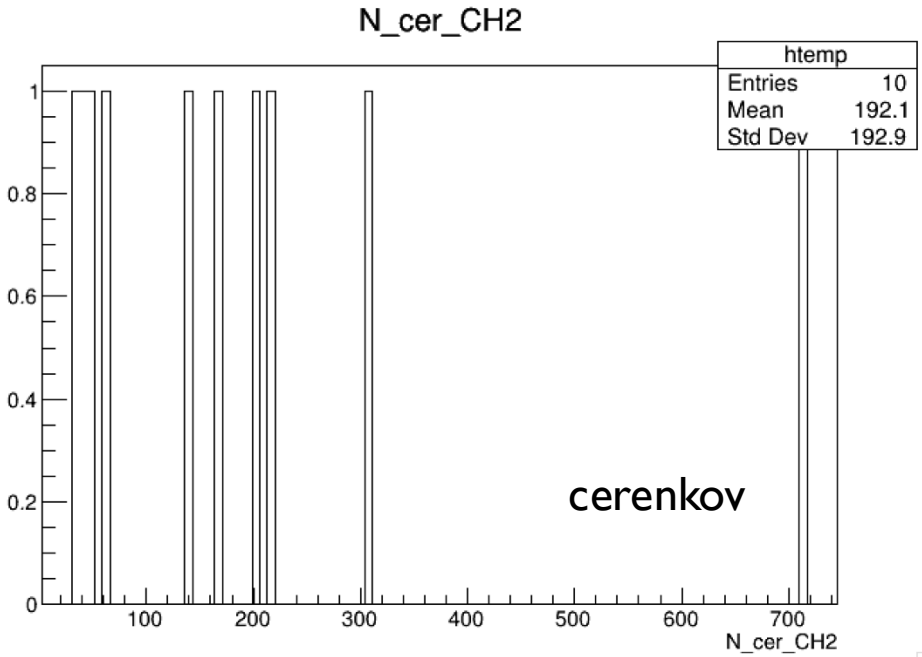




PHOTON COUNTING IN SIPM CHANNEL 1: **180 DEGREE**

- mu+ at 120 GeV, σ_{beam} = 0.25 cm, 10 events





TO DO LIST

- cer/scint vs degree plots
- Implement CH2 filter in assembly geometry
- Photon wavelengths? Trigger addition?