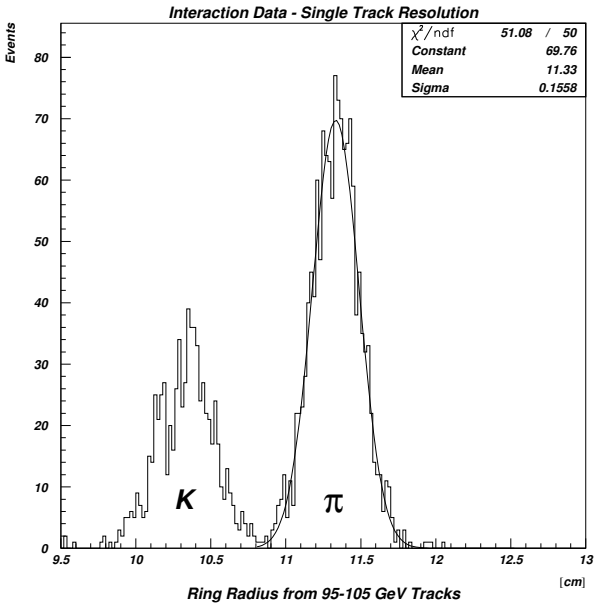
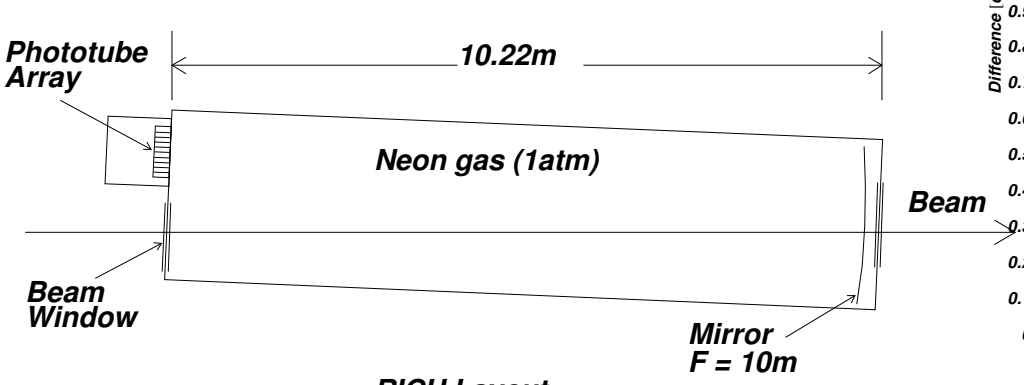
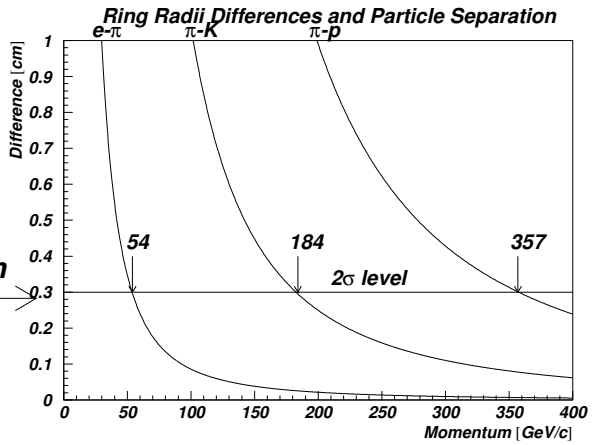
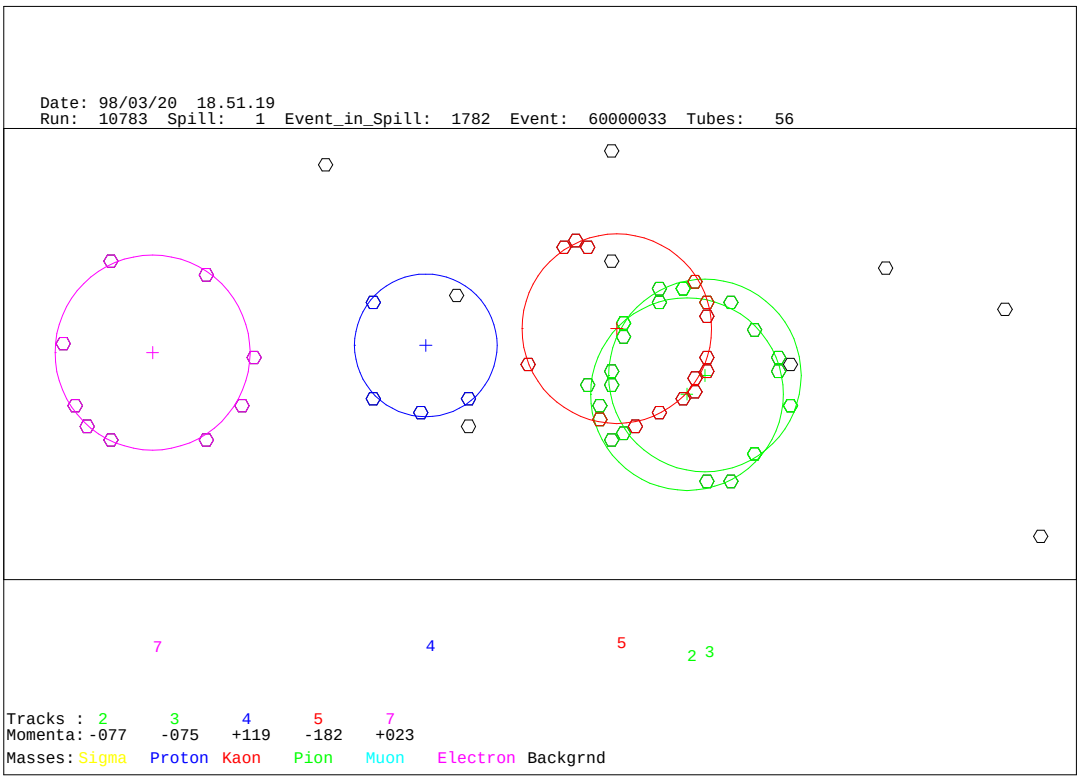
The SELEX Phototube RICH Detector

(First results published in FERMILAB-Conf-97/210-E)

- **Radiator** - 10m long with Neon gas at atmospheric pressure
- **Mirror** - spherical with focal length F=990cm built up of 16 hexagonally shaped spherical mirrors, covering a total area of 2.4 m × 1.2 m.The mirror reflectivity is $> 85\,\%$ at 160 nm.
- **Photocathode** - matrix of 89x32 phototubes (15mm diameter)
- **Performance** - in a 600 GeV/c π^- beam the number of photons detected per ring is 14, giving a figure of merit N_0 of 104 cm^{-1}. The ring radius resolution obtained is 1.2 %, which provides 2σ π-K separation up to 180 GeV/c and π-p separation up to 360 GeV/c.





RICH Layout