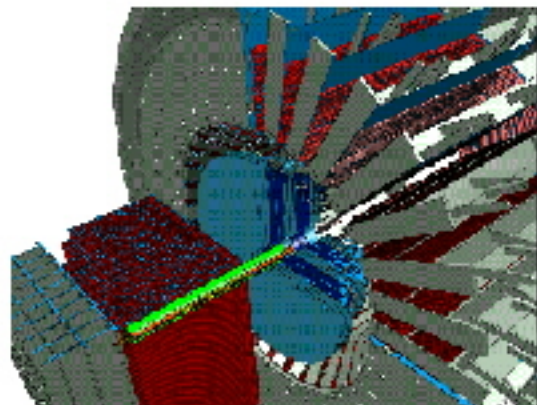


# Investigating the Experimental Detector Accelerator Interface: eRHIC

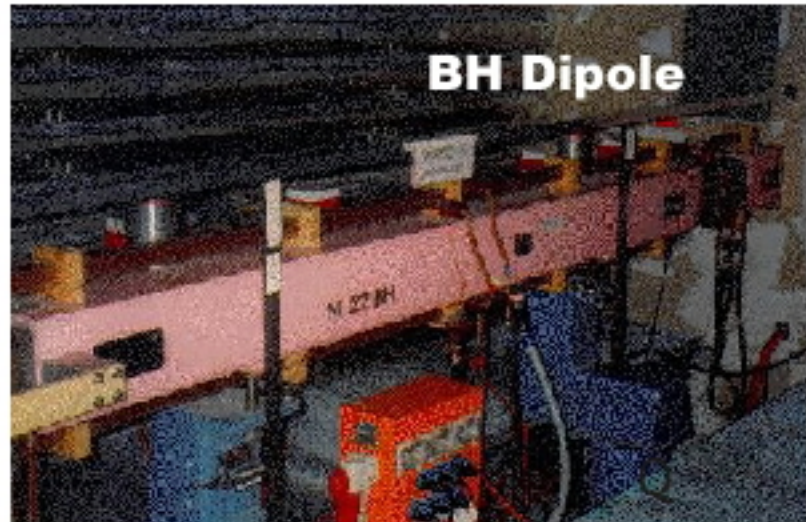
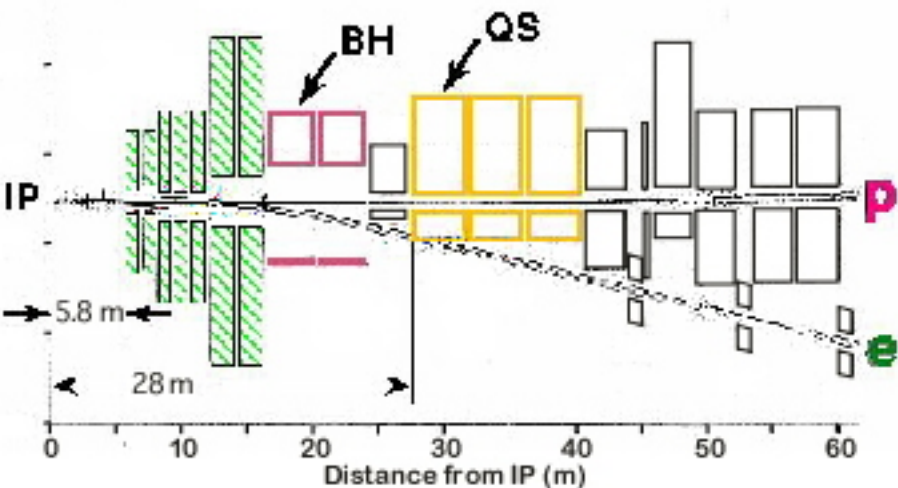
*Just the physics please!*



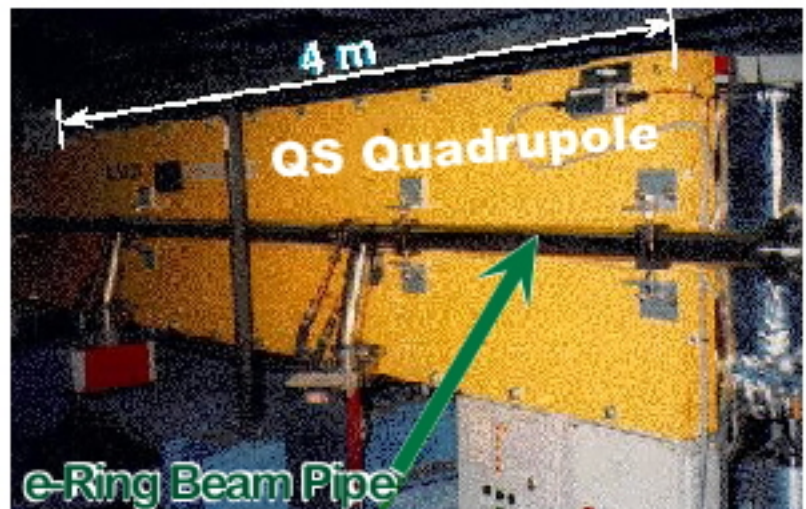
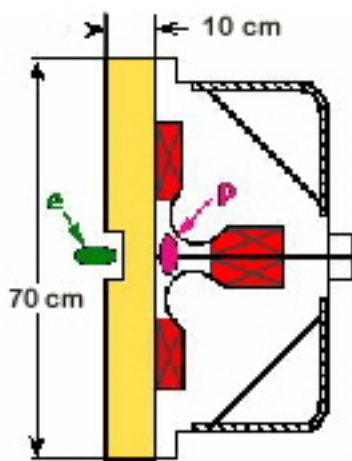


# Can you provide background on what has been done in the past?

HERA Layout Before Luminosity Upgrade



- Beams "gently" separated.
- Separation < 10 cm at 28 m.
- The first superconducting quadrupole is at 115 m.
- p-ring has vertical bend just beyond region shown.

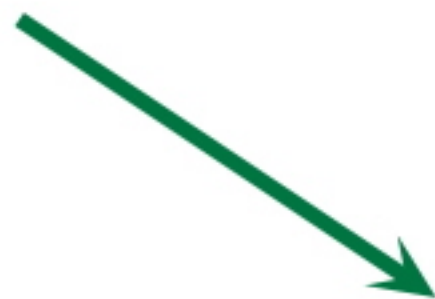
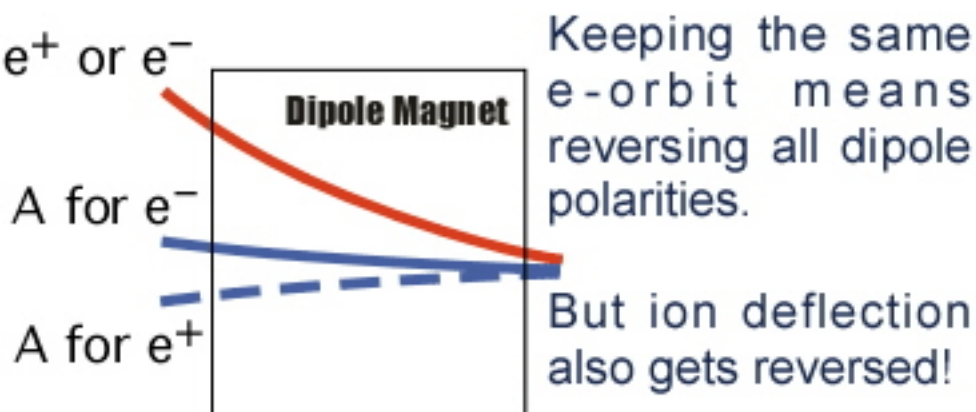




*Are you positive that you know all the particles that are involved?*

Historically HERAe has switched from electrons to positrons and back a few times.

- **Experimenter Requests**
- **Accelerator Physics Issues**



**Be careful setting apertures!**

**Permanent magnets in arcs?**



# *Ok, so how low in energy do we have to go ?*

Historically HERAp has been asked to provide beam time at reduced proton energy.

- Are there experiments which require different kinematics?
- If so can everything be done with the ion (proton) beam?
- How are radiative corrections handled for high-z "targets?"

Permanent magnets in arcs?

What is the spin tune?