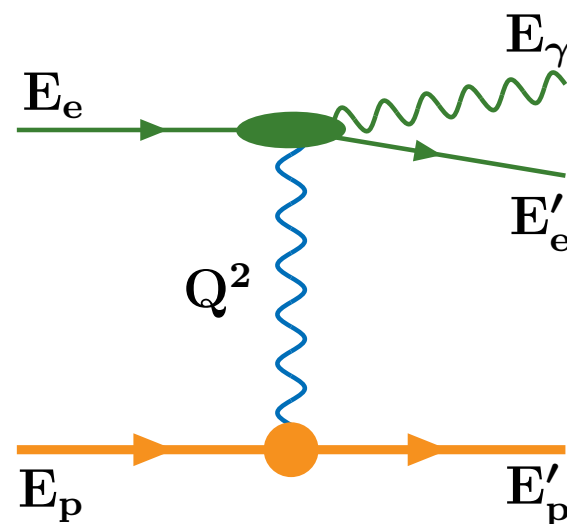


Input for the DSC discussion

Krzysztof PIOTRZKOWSKI



Three Far Backward *Detector Sub-system Collaborations* (DSCs) are tentatively proposed:

Pair Spectrometer (PS) DSC, which includes two dipole magnets w/ beamline integration, conversion foils, two calorimeters, and some auxiliary tracking

High-Rate Calorimeters (HRC) DSC, which include *movable* direct photon detectors, SR filters with monitors, and two low- Q^2 electron calorimeters

High-Rate Tracker (HRT) DSC, which includes high resolution pixels trackers of low- Q^2 electrons and beamline integration aspects (as the electron exit window, beampipe wall, RF shield and SR masks)

Very fruitful interactions between DSCs are foreseen:

- single- γ calorimeter developments of the HRC DSC performed together with the PS DSC
- regarding simulations of electron trajectories/backgrounds between HRT and HRC DSCs
- for tracking aspects between PS and HRT DSCs

Why we need 3 DSCs?

It is an optimal number of separately led (DSC) subprojects which ensures efficient development, design, construction and delivery of these 3 sub-systems.

The FB sub-systems are small but very challenging, in addition serving two very distinct purposes: a very precise luminosity determination and registering physics processes (low- Q^2 and the ISR).

Three FB sub-systems are **largely independent**, apart from PS "aperture constrains" and electron tracker "material budget". They also employ **different technologies**, as for example in the case of the PS and HRC DSCs (event rates differ by factor > 100).

Of course, common FB meetings should be continued (biweekly?) – to cross-coordinate (as EIC beamline integrations!), discuss the MC simulation progress/physics or lumi measurement aspects.