

Expression of interest

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EICUG Diffraction & Tagging WG

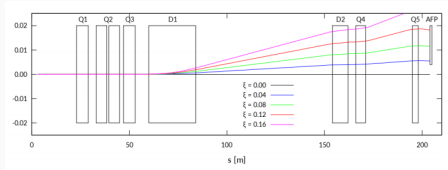
5 March 2020

Expression of interest and possibilities

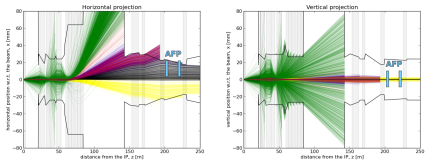
- Presently involved in forward proton tagging in ATLAS at LHC (elastic scattering, diffraction, two-photon processes, detector operations and performance)
- Some experience with development of Monte Carlo generators (FPMC, GenEx – generators dedicated to forward proton physics)
- Generally interested in EIC physics
- At the moment, no preference for particular physics topic
- **Significant experience with feasibility studies for roman pot detectors at LHC** (examples of previous work on the next slide)
- **Interested to contribute to similar studies for EIC**
- Involvement up to 0.5 FTE towards the end of the year
- Possibly undergraduate students for small projects

Some examples of previous work

Simulations of proton transport through the accelerator magnetic lattice

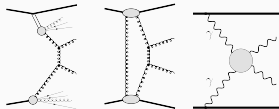


Feasibility of tagging spectator fragments from AA collisions in RP detectors



green - hydrogen blue - deuterium yellow - tritium red - helium black - others

Feasibility studies for various diffractive processes at LHC



Development of reconstruction methods and software

Studies of detector performance

