

# Exclusive Processes W.G. - Benchmarks

Preliminary outcome of a participated discussion on Feb. 14

- **DVCS**
  - On proton, including polarization (FX Girod, generator: MILOU & studies by S. Fazio, +...)
  - On deuteron: with proton-tagging for measurements on neutron (possibly Genepi, Silvia N.)
  - Coherent on light ions: D with double tagging and He4 (Vadim Guzey, Raphael and Sergio + students)
- **TCS**
  - on proton (Generators: Grape, S. Niccolai)
  - Low  $Q^2$  constraints on electron, high  $Q'^2$
- **Meson production**
  - Heavy: J/Psi and Y - (Elke A. studies for J/Psi, eSTARlight - Spencer K., SARTRE generator, ANL group have generators);
    - can one distinguish Y states?
  - Light: phi ( $s\bar{s}$ )
  - $2\pi$  (includes  $\rho$ ,  $f_0$ ,  $f_2$  ...)
  - $\pi^0$  as DVCS background, [A. Kim, FX Girod, S. Fazio]
  - $K$ ,  $\eta$ , D-mesons
  - On heavy ions, challenges:  $|t|$  reconstruction, suppression of incoherent part (SARTRE, Thomas U., Tobias Toll)
  - Charged current production of D-meson via W exchange, (Ivan Schmidt, Siddikov [Siddikov:2019ahb]; Simonetta L.)
  - Backward meson-production (Bill & Bernard P.)
  - Detection of electrons vs muon pairs
- **Exclusivity & rapidity gaps**
  - Overall: How hermetic does the detector need to be to see a rapidity gap? (Rapgap-generator, Daniel T.)