Discussion: Physics program for backward angle scattering

Backward angle scattering workshop, 21-23 Sep 2020

JLab12 backward scattering experiments

 $ep \ \mathsf{CLAS12} \ \pi^0, \phi, \text{ other channels, } \sigma?; ed \to pn \leftarrow \mathsf{TODAY}$ $ep \ \mathsf{Hall} \ \mathsf{C} \ \pi^0, \eta; \omega, \rho, \phi, \text{ other channels } \sigma? \leftarrow \mathsf{TODAY}$ $\gamma p \ \mathsf{Hall} \ \mathsf{C} \ \mathsf{Compton} \ \leftarrow \mathsf{TOMORROW}$ $\gamma p \ \mathsf{Hall} \ \mathsf{D} \ \omega, K\Sigma, B\overline{B} \leftarrow \mathsf{TOMORROW}$

- What is needed for planning, simulations, analysis?
- What are the priorities for channels and kinematics?

Theory and interpretation \leftarrow

Hard dynamics: QCD factorization, TDAs

- Soft dynamics: Hadronic/Regge models
- What developments are needed, possible?

High-energy backward scattering at EIC and UPCs $\ \leftarrow$

New opportunities: Broad kinematic range, other channels?

- What simulations and modeling are needed?
- What detection is needed/possible?

Connections and synergies with hadronic probes \leftarrow

 $\bar{p}p$ at PANDA, hadron-p at J-PARC

• How to integrate them in common physics program?