

# XXVIII International Workshop on Deep Inelastic Scattering and Related Subjects



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## Physics and kinematics of photo-production at an electron-ion collider

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Photoproduction at an electron-ion collider can be used to study many topics. Vector-meson photoproduction via photon-Pomeron interactions are a well-established method to study the gluon structure of nuclei. Reactions involving Reggeon exchange on proton targets can be used to study a wide variety of final state mesons, including charged mesons like the  $\rho^+$  and  $\rho^0$ ; the photon-meson coupling is sensitive to the meson spin and structure. Backward photoproduction, where the vector meson recoils from the target nucleus, is also of interest at an EIC.

This talk will present some of the physics that can be studied at an EIC, with an emphasis on near-threshold reactions, photoproduction of exotica, and backward production, and then discuss the kinematics for different photoproduction reactions, with an emphasis on the detector requirements

**Primary authors:** Dr KLEIN, Spencer (LBNL); Mr HEPPELMANN, Sam (UC Davis)

**Presenter:** Dr KLEIN, Spencer (LBNL)

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