## XXVIII International Workshop on Deep-Inelastic Scattering and Related Subjects



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## NLO inclusive $J/\psi$ photoproduction at large $P_T$ at HERA and the EIC

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We study inclusive  $J/\psi$  photoproduction at NLO at large  $P_T$  at HERA and the EIC. Our computation includes NLO QCD leading P\_T corrections, QED contributions via an off-shell photon as well as those from  $J/\psi$ +charm channels. For the latter, we employ the variable-flavour-number scheme. Our results are found to agree with the latest HERA data by H1 and provide, for the first time, a reliable estimate of the EIC reach for such a measurement. Finally, we demonstrate the observability of  $J/\psi$ +charm production and the sensitivy to probe the non-perturbative charm content of the proton at high x, also known as intrinsic charm, at the EIC.

**Primary authors:** FLORE, Carlo (IJCLab Orsay); SHAO, Hua Sheng (LPTHE Paris); LANSBERG, Jean-Philippe (Paris-Saclay U. - IJCLab - CNRS); Ms YEDELKINA, Yelyzaveta (Université Paris-Saclay, CNRS, IJCLab Orsay)

Presenter: FLORE, Carlo (IJCLab Orsay)

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