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Optimizing the EIC for future PDF phenomenology[1] TIMOTHY HOBBS, EIC Center at JLab and Southern Methodist Univ — The recent approval of CD-0 for the Electron-Ion Collider (EIC) has set in motion an aggressive Yellow-Report Initiative to optimize the design of the EIC to guarantee the highest-impact physics program. A crucial aspect of this process has been a focus on the EIC's potential impact on the collinear parton distribution functions (PDFs) of the nucleon and nuclei as well as the resulting phenomenological implications, including at higher energies. In this talk, I will survey a number of PDF-driven activities that have played out in support of the EIC Yellow Report throughout 2020. Special attention will be paid to the ability for the EIC to disentangle the flavor dependence of the unpolarized PDFs, which generally require a diversity of experimental measurements and channels to constrain.

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