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Charm jets as a probe for strangeness at the future Electron-Ion Collider[1] STEPHEN SEKULA, Southern Methodist University, MIGUEL ARRATIA, University of California, Riverside, YULIA FURLETOVA, Thomas Jefferson National Accelerator Facility, TIMOTHY HOBBS, Southern Methodist University and the Jefferson Laboratory, EIC Center, FRED OLNESS, Southern Methodist University — We explore the feasibility of the measurement of charm-jet cross sections in charged-current deep-inelastic scattering at the future Electron-Ion Collider. This channel provides clean sensitivity to the strangeness content of the nucleon in the high-x region. We estimate charm-jet tagging performance with parametrized detector simulations. We show the expected sensitivity to various scenarios for strange parton distribution functions. We argue that this measurement will be key to future QCD global analyses, so it should inform EIC detector designs and luminosity requirements. This work is summarized in arXiv:2006.12520 (https://arxiv.org/abs/2006.12520).

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