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Abstract for an Invited Paper for the DNP19 Meeting of the American Physical Society

Collective Effects in Nucleons and Nuclei¹

ADRIAN DUMITRU, Baruch College, The City University of New York

In the first part of the talk I describe high-energy coherent scattering from a nucleus. Here, a colored probe scatters from the color field generated collectively by many sources whose low transverse momentum modes have large occupation numbers. I provide examples for how this regime of non-linear color fields could be probed at the EIC. In the second part of the talk I address color charge correlators in the proton and how these relate to Generalized Parton Distributions (GPDs) for exclusive processes. Using photon diffraction into charmonium as an example, I discuss the importance of multi-particle GPDs in J/Ψ and η_c production.

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