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e+A physics at an Electron-Ion Collider MATTHEW LAMONT, Brookhaven National Lab, EIC SCIENCE TASK FORCE COLLABORATION — It is believed that the dense matter crated in A+A collisions at RHIC and LHC evolves from an initial state involving the collision of soft gluon fields of each nucleus rapidly producing a thermalized state. These fields in the relevant region are only vaguely known. In e+A collisions, the final state interactions are absent and the initial conditions are not wiped out by the evolving system. This, coupled with the fact that the kinematics of the partonic interactions can be fully controlled in DIS, makes electron-ion collisions the ideal tool to study the nature of the initial state. In this talk I will review the capabilities and aspirations of the physics obtainable with e+A collisions at a future eRHIC collider.

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