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# Initial Motion of Nuclei After High Energy Collisions

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We study the kinematics of nuclei after a collision at close to the speed of light. The nuclei are treated as sources of color-glass condensate that form gluon fields between the nuclei after the collision. We consider this field to be the driving force in the subsequent deceleration and transverse motion of the nuclei. We solve this problem for early times in the general situation, and we also look at full solutions in the weak field approximation. We discuss results for various impact parameters at RHIC and LHC energies. Our results could improve the initial conditions used for subsequent 3+1D fluid dynamic simulations of nuclear collisions.

**Authors:** ROBICHEAUX, Stephen (Texas A&M University); FRIES, Rainer (Texas A&M University)

**Presenter:** ROBICHEAUX, Stephen (Texas A&M University)

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