



Initializing Strange Densities in the Initial State with Open-Source ICCING

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While it is well known that there is a significant amount of conserved charges in the initial state of nuclear collisions, the production of these due to gluon splitting has yet to be thoroughly investigated. The ICCING (Initial Conserved Charges in Nuclear Geometry) algorithm [1] reconstructs these quark distributions, providing conserved strange, baryon, and electric charges, by sampling a given model for the $g \rightarrow q\bar{q}$ splitting function over the initial energy density, which is valid at top collider energies, even when $\mu_B = 0$. The ICCING algorithm includes fluctuations in the gluon longitudinal momenta, a structure that supports the implementation of dynamical processes, and the c++ version is now open-source. There is significant strangeness production that reflects a different geometry than the bulk and could lead to the extraction of information about the hot spots of the medium.

[1] Patrick Carzon, Et al. arXiv: 1911.12454 [nucl-th] (Accepted by PRC)

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