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## Studying quark anti-quark pairs in the initial state as a background for the CME

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Due to gluon splittings into quark anti-quark pairs, initial fluctuations in baryon (B), strangeness (S), and electric charge (Q) are possible in a high-energy initial condition for the Quark Gluon Plasma. We assume that the initial condition given by

TRENTO provides the gluon distribution and then we convert that into BSQ charge fluctuations using the newly developed ICCING code that incorporates these gluon splittings. These new initial conditions are ran into a relativistic viscous hydrodynamic code that conserves BSQ to study the consequence of charge fluctuations on the final state. Using this framework we quantify charge fluctuations that may affect the chiral magnetic effect

observables at RHIC and the LHC.

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