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**Effect of quark momentum spread on hadron elliptic flow in relativistic heavy ion collisions** COLIN YOUNG, Tulane University, CHE MING KO, Cyclotron Institute, Texas A&M University — In the naïve quark coalescence model, which allows for the coalescence into hadrons only of quarks with the same momentum, the elliptic flow of hadrons produced in relativistic heavy ion collisions would scale with their constituent quark content. Including the momentum distribution of quarks within hadrons is expected to lead to a violation of the quark number scaling of hadron elliptic flow. In a blast wave model, we have derived an analytical expression for the correction to the quark number scaling due to this effect and evaluated its value for heavy ion collisions at the Relativistic Heavy Ion Collider.

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