

## Directed flow of light flavor hadrons

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Experimentally observed splitting of directed flow ( $v_1$ ) between proton and anti-proton has been a challenging observable for the models to describe. We propose a two-component baryon deposition scheme driven by participants as well as binary collision sources. Evolving such a profile through a hybrid framework (hydrodynamics + hadronic transport), we are able to capture the  $v_1$  of light flavor hadrons along with the splitting of  $v_1$  between baryon and anti-baryon across beam energies ranging from  $\sqrt{s_{NN}} = 200$  GeV to 7.7 GeV. We further demonstrate that recent STAR measurements of centrality dependence of  $v_1$  split of oppositely charged hadrons that is expected to be signals of electromagnetic field receive large background contribution from the physics of baryon stopping.

### Theory / experiment

Theory

### Group or collaboration name

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