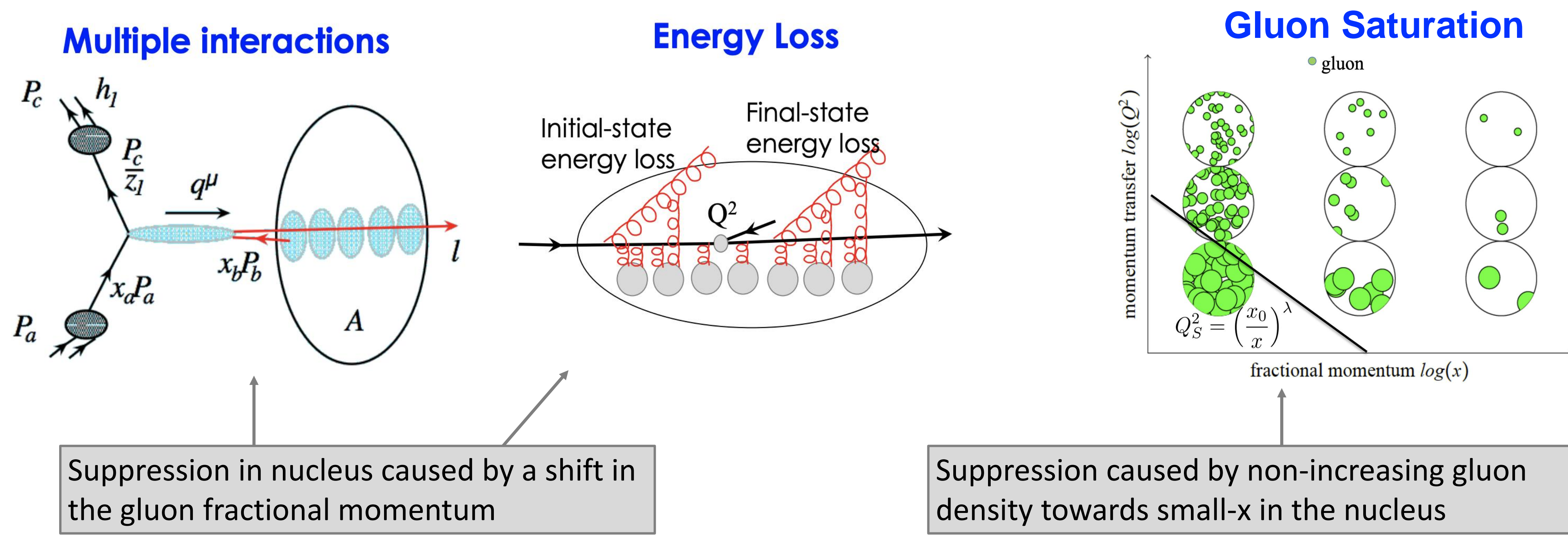


Studies of Nucleus Structure at LHCb

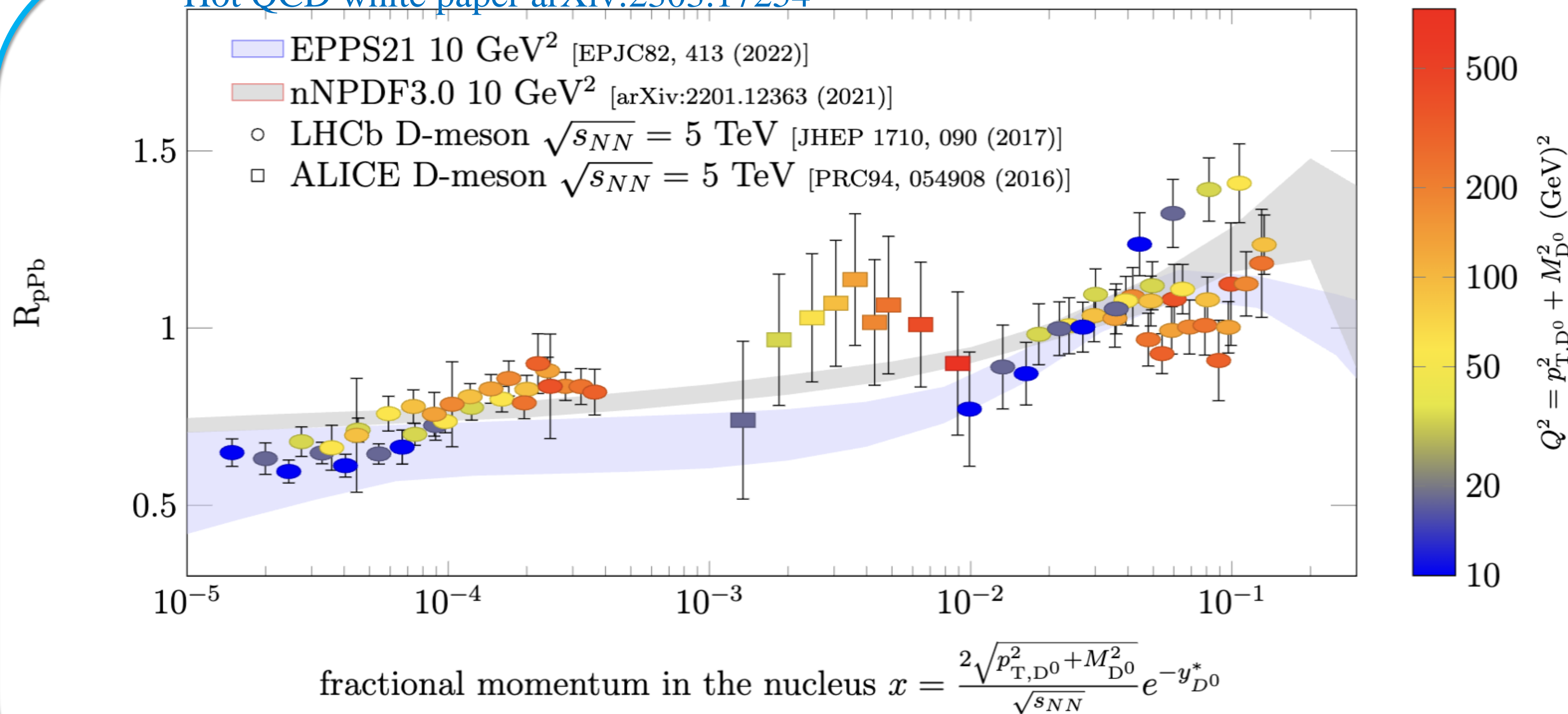
Cesar L. da Silva for the LHCb Collaboration

Los Alamos National Lab

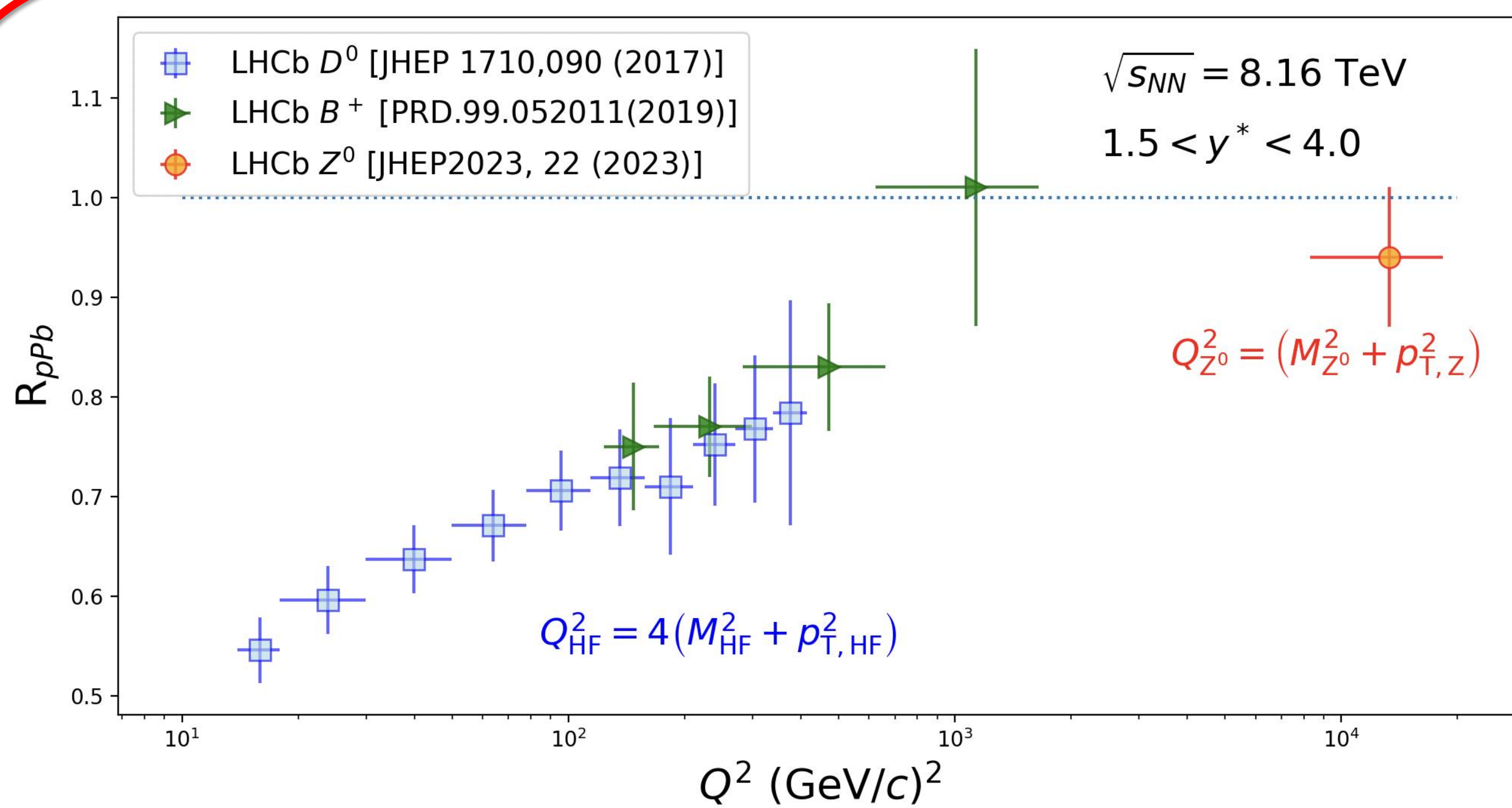
Initial-State Effects in pA collisions



Hot QCD white paper arXiv:2303.17254



nPDFs are in another level of precision now, thanks to LHCb data

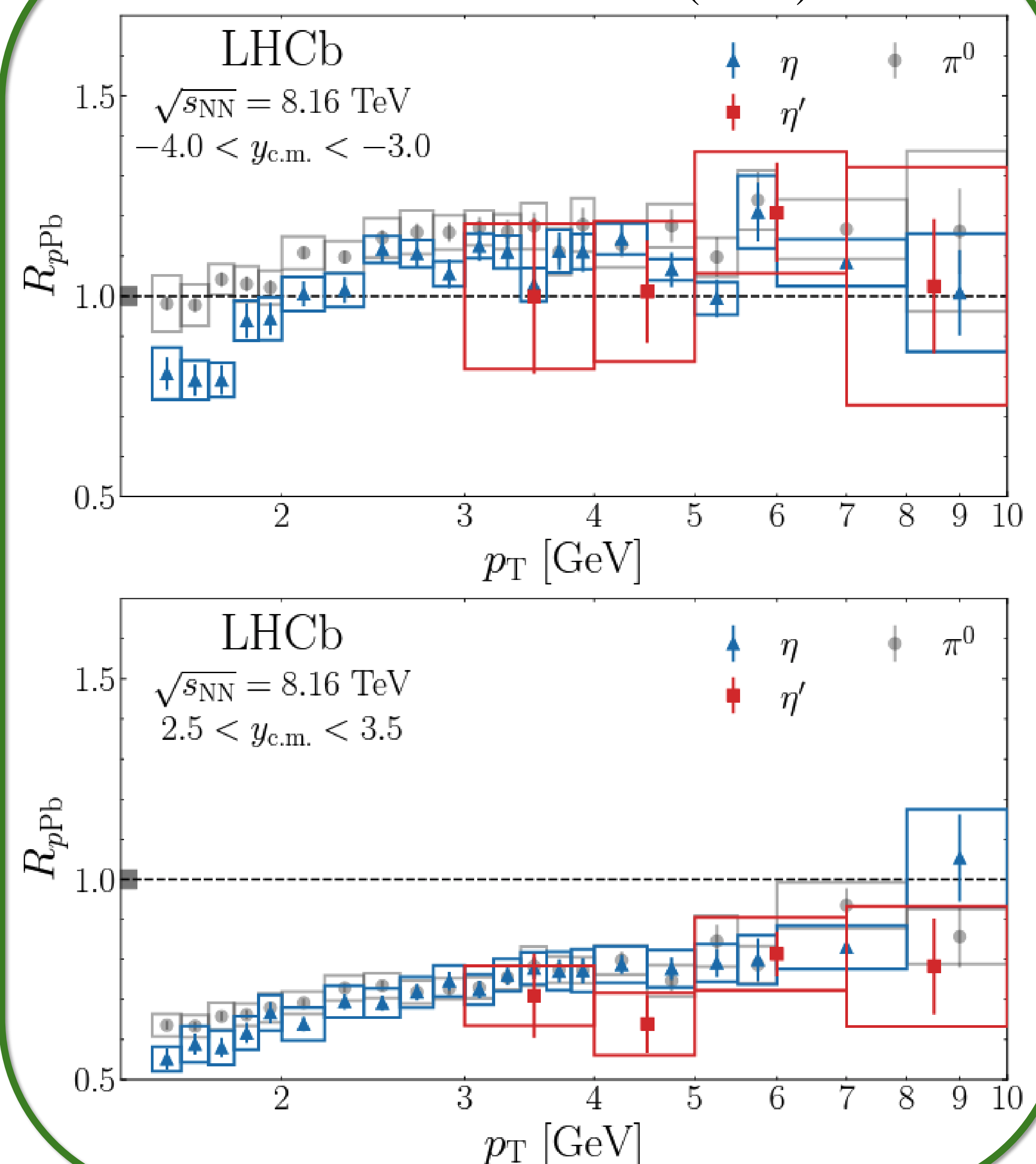


Consistent suppression between heavy flavor and electroweak probes when plotting versus momentum transferred

Consistent suppression of π^0 , η and η' at forward rapidity (small- x)

Consistent enhancement of π^0 , η and η' at backward rapidity (large- x)

arXiv:2310.17326 PRL131 (2023) 042302



Additional measurements and probes needed to disentangle the source of gluon suppression at small- x and the enhancements at large- x . Future LHCb studies with current and future pPb data:

Work in progress to conclude the analysis of low- p_T direct photons, Drell-Yan studies, jets, and meson spectroscopy.