

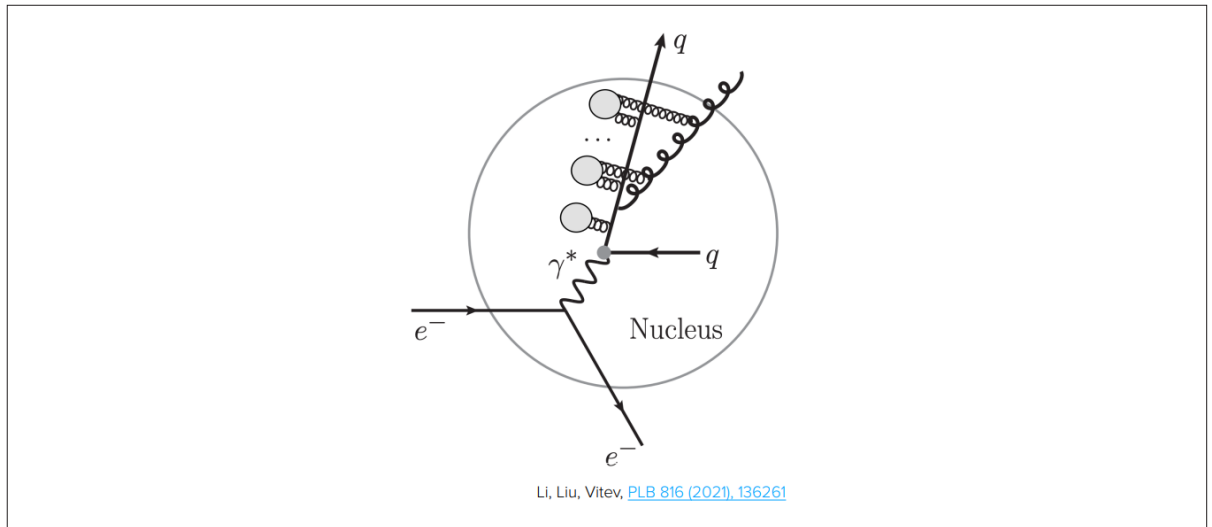


Isaac Mooney

Wayne State University

July 21, 2022 at 11:00 a.m. in WL-216 & Zoom

Jet substructure measurements in proton-proton and proton-gold collisions at RHIC



Measurements of the substructure of high-momentum jets produced in proton-proton (pp) collisions give insight into fundamental aspects of QCD, from the production of highly virtual partons, to their subsequent radiation and hadronization. Additionally, once the evolution of jets in vacuum is calibrated, it is possible to study potential modification to jet substructure due to interaction with the cold nuclear medium present in proton-gold (pAu) collisions. I will present substructure measurements by the STAR Collaboration (the first fully corrected inclusive jet mass in pp collisions at RHIC: *Physical Review D* 104, 052007 (2021); the first fully corrected jet substructure in pAu collisions at RHIC: in preparation). Additionally, I will compare experimental results to theoretical calculations and models, and discuss the implications of these results.

Lunch with the speaker will be provided from 12-1 p.m. for those who RSVP by Tuesday, July 19th at <https://tinyurl.com/npa-signup>. <https://tinyurl.com/npa-signup>

Host: Laura Havener

Connection info: <https://yale.zoom.us/j/98300235819>

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