

EIC Research Interests

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BNL-PO@EIC Meeting

June 6th, 2022

Research Interests and Detector Considerations

- ❑ Spin structure of the proton (esp ΔG)
 - Golden channel: $dg_1/d\ln(Q^2)$
 - Dijet ALL can provide an important cross check – different subprocess & systematics
 - The use of jets allows for accurate reconstruction of the partonic kinematics

- ❑ Hadronization process
 - Explore use of jet / substructure observables
 - Many such observables are sensitive to details of soft radiation and are under good theoretic control

- ❑ Detector Tie-in
 - Precision measurement of jets at the EIC will require good tracking and EM calorimetry
 - Hadron calorimetry will be important in the forward region where particle/jet energies can be large
 - In mid to backward rapidity region, may be more beneficial to use Hcal to tag neutral hadron containing jets
 - Substructure measurements will require good calorimetry granularity / spatial resolution
 - Good overall detector hermiticity required