

Introduction

Wim Cosyn (FIU)

Some context...

- With YR done & proto-collaborations forming, EICUG SC is assembling a **Physics WG** (theorists)
- Provide an interface for joint theo/exp discussions. Topics/problems will be solicited, Physics WG can **provide advice**, “task forces” can be formed.

Crossing angle

- Motivated by the publication of this note, and upcoming proposal deadlines, SC proposed crossing angle as first topic to address, was asked to lead this.
- **Provide theory advice/input, broaden scope to entire UG**
- **Hopefully input from all collaborations, esp. from people already working on this**
- Short-term goal: address any questions/issues with regard to proposal-related work
- Long term goals: can be set at first meetings, with input from everyone.
SC suggestion: writeup after some time

Accelerator and beam conditions critical for physics and detector simulations for the Electron-Ion Collider

Jaroslav Adam¹, Elke-Caroline Aschenauer¹, Markus Diefenthaler², Yulia Furtletova², Jin Huang¹, Alexander Jentsch¹, and Brian Page¹

¹Brookhaven National Laboratory, Upton, New York 11973, USA

²Thomas Jefferson National Accelerator Facility, Newport News, Virginia 23606, USA

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Abstract

We identify accelerator and beam conditions at the Electron-Ion Collider (EIC) that need to be included in physics and detector simulations. For our studies, we implement accelerator and beam effects in the Pythia 8 Monte Carlo event generator and examine their influence on the measurements in the central and far-forward regions of the detector. In our analysis, we demonstrate that the accelerator and beam effects can be also studied accurately by modifying the Monte Carlo input to detector simulations, without having to implement the effects directly.

Expectations?

- This is **not** meant to replace any existing efforts, but to add any desired theoretical input and involve everyone interested

- Theorists are there to provide advice/input, we will not tell you what simulations to run or run actual simulations