

eRHIC IR Design Meeting

Draft Minutes for Friday, August 9, 2019

Present: Holger Witte (Chair), Jaroslav Adam, Elke Aschenauer, Alexei Blednykh, Kyle G. Capobianco-Hogan, Bill Christie, Alex Jentsch, Alexander Kiselev, Gary McIntyre, Christoph Montag, Bob Palmer, Brett Parker, Vadim Ptitsyn, Guillaume Robert-Demolaize, Steven Tepikian, Qiong Wu, Zhengqiao Zhang

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1 Simulation Update—Elke, et al.

1.1 *Alex Jentsch*

Title: “Update on Roman Pots/B0 and ZDC”

File: [RP_B0_IR_Meeting_Slides_8_9_2019_v2.pdf](#)

1. High acceptance configuration has a much smaller 10σ region than high divergence configuration. Increased acceptance of DVCS protons is at the cost of decreasing lumi. Roman pots will be movable to allow for switching of configurations. [slide 5]
2. Beam pipe is not considered in simulations.
3. Elke: B0 needs optimization.

1.2 *Jaroslav Adam*

Title: “Luminosity monitoring for eRHIC”

File: [JA-Lumi_20190809.pdf](#)

1. Elke: Can also use lumi. monitor for syn. rad. measurements.

2 Update on Plan and Resources to Get to CD1—Holger

1. Holger has been putting a lot of effort into it.
2. This is preliminary and therefore is not on SharePoint.

3 Functional Impact of Decreasing y -Divergence of Electron and Hadron Beams on Luminosity—Vadim

Title: “diverg”

File: [diverg.xlsx](#)

1. Elke: The process that needs the most divergence is also the process that needs the most luminosity.

4 Machine Detector Interface Paper and Talk for NAPAC2019—Brett

Title: “Electron Ion Collider Machine Detector Interface”

File: [TUZBA2_Draft000.pdf](#)

Title: “IR Design Considerations and Machine Detector Interface for Electron Ion Colliders”

File: [IR_MDI_for_EIC_Parker_12Apr2019.pptx](#)

1. Inform Brett of any changes from his April presentation ASAP as the paper must be finished by the end of next week.

5 Next Meeting: Friday, August 23, 2019 from 2:30 to “3:30” p.m.¹

5.1 Draft Agenda

1. Holger
2. Update on Simulations—Elke
3. Impedance Analysis
4. Any Other Business

¹Rescheduled from 2:30–“3:30” p.m. to 3:00–“4:00” p.m. due to shelter in place drill scheduled for Friday, August 23, 2019 from 2:30 to 2:45 p.m.