eRHIC IR Design Meeting

Draft Minutes for Friday, September 6, 2019

Present: Holger Witte (Chair), Elke Aschenauer, Alexei Blednykh, Kyle G. Capobianco-Hogan, William "Bill" Christie, Charles Hetzel, Alexander "Alex" Jentsch, Alexander Kiselev, Alexander "Sasha" Novokhatski, Robert "Bob" Palmer, Ferdinand Willeke, Qiong Wu

Agenda

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1 Discussion of the Synchrotron Radiation Fan and Beam Pipe/Vacuum Chamber Design—All

- 1. Charlie: Beam pipe inner diameter in latest design appears to have increased from 62 mm to 80 mm at IP.
 - (a) Where did this come from and are we making it an official change.
 - (b) Holger: Believes it came from Mike Sullivan's presentation on synchrotron radiation simulation results and analysis.
 - (c) Holger: pCDR value has not been changed so stick with 62 mm.
- 2. Spectrometer detector acceptance 20 mrad.
- 3. Elke: Need to make an agenda for Mike Sullivan's visit (September 25–28).
- 4. Charlie: Eventually need to lay out beam pipe out to crab cavities.
- 5. Charlie: Impedance has improved since early/initial/pCDR version 1 stage, but still needs to be optimized.
- 6. Charlie: need to figure out how much space we have for cryostats. Need to start laying IR region out.
 - (a) First pass cryostat in four to six weeks.
 - (b) Elke: Table of magnet (yoke) sizes would be nice.
- 7. Alexander K. will look into effects of changing beam pipe inner diameter at IP on detector performance.

- 8. Alexei: Will we be making changes to the pCDR or making separate documents?
 - (a) Ferdinand: Will use separate documents to detail changes from the mother document.
- 9. Discussion of design requirements and parameters database.
- 10. Alexei: Sasha sent updated geometry.
- 11. Elke: Where to go to get info regarding IR-12 for polarimeters?
 - (a) Ferdinand: Wednesday 2:00 p.m. Accelerator Design Meetings.
- 2 Next Meeting: Friday, September 20, 2019 from 2:30 to "3:30" p.m.

2.1 Draft Agenda

- 1. Agenda for Mike's visit.
- 2. Update from Charlie regarding vacuum status.
- 3. Bob: Updated IR figures.
- 4. Holger: Update on cryostat dimensions.
- 5. Mark Brightfellow: Presentation ideas (if he's around).