

eRHIC IR Design Meeting

Draft Minutes for Friday, February 14, 2020

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1 **Synchrotron radiation meeting summary—E. Aschenauer**

1. How do we calculate the effect of beam gas on beam tail distributions?
2. Need to investigate potential simulation code.
 - (a) H. Witte will look into BDSIM.
3. Simulation code needs to simulate the whole electron ring (not just the IR) including effects of RF.

2 **Hadron IR orbit correction—S. Peggs**

Title: “Hadron IR orbit correction”

Subtitle: “hCR_200211”

File: [Peggs_IR_mtg_200214.pdf](#)

1. Cryo_2e and Cryo_1w are the “East” and “West” cryostats [slides 5–6].
2. Are 1 mm quad displacements and 1 mrad dipole roles (RMS) tolerances reasonable?
 - (a) G. McIntyre will look into with survey group.
 - (b) S. Peggs will get the corrector strengths for 1 mm quad displacements and 1 mrad dipole roles (RMS) so we can get some idea of whether or not they are feasible.
3. Detector dipole has not been included in simulations so far.

3 “Final” eR lattice—J.S. Berg

1. “The quick summary is I have plenty of matches, but I don’t like any of them.”
2. Lattice is done between the two crab cavities.

4 All other business

1. Q. Wu: Writing a requirements document for lattice parameters for crab cavities and beam dynamics.

5 Draft agenda for Friday, February 21, 2020 from 2:30 to 3:30 p.m.

1. “Final” eR lattice—J.S. Berg
2. Rehearsal talk—H. Witte
3. Update on existing RHIC survey information—G. McIntyre
4. Backup IR solution featuring an additional quadrupole—R. Palmer

6 Draft agenda for Friday, February 28, 2020 from 2:30 to 3:30 p.m.

1. Requirements document for lattice parameters—Q. Wu