

Ernest first commented on the $G\gamma$ vs $1 + G\gamma$ issue. The old way of calculating resonance strength is correct. No correction for the resonance strength calculation is needed. There is no difference when using different coordinate system.

Woody presented the analysis of ORM data taken at injection with bare machine. The idea is to check the coupling due to possible rolling of the dipole magnets by looking at the vertical orbits with horizontal kicks (or vice versa). With rolling amplitude of less than 1 mrad, the data can all be fitted well. However, the horizontal tune calculated from model with rolling dipoles is quite different from measurements: $Q_x = 8.73$ as measured but $Q_x = 8.708$ in the model. Frank Karl has provided data for preliminary survey of two spare magnets: one long(90") and one short (75"). Woody presented fitting with the interpretation that short magnet rolled. After the meeting, Frank said that the short magnet only has sagging. He also estimated that 3-4 magnets can be surveyed in the ring during a maintenance day. We will decide which kind magnet to be surveyed. In the meantime, Woody suggested to Vincent to check the beta wave with quads on using MAD.

Fanglei presented the calculation of horizontal resonance effect based on a simplified model. She used the real acceleration rate throughout the energy ramp and real MAD lattice to extract the γ function in front of snakes. The results showed that there is little difference between polarization losses of 2.25T and 2.5T snake configurations, while 2.1T snake is almost a factor 2 better than the 2.5T snake. It is a puzzle why the first two cases are so similar and she is going to check the calculation. She also used spin tracking to compare with crossing over region around $36+\nu$. Thomas suggested that the comparison should be done with same number of horizontal resonance crossings.

Kevin could not come to the meeting but he told Haixin that he and Vincent found a bug when building AGS model using MADX. Now the results from MAD8 and MADX are consistent, and it is work in progress.

Haixin