KURRI FFAG MEETING 25/08/2016
12:30
BlueJeans

Attendees:
S. Sheehy, D. Kelliher, S Machida - RAL
M Haj Tahar, F. Meot, J. S. Berg - BNL
Y Ishi, T Uesugi, Y. Mori - KURRI
H. Okuno - RIKEN

Minutes:

1. Malek and Shinji presented dynamic aperture calculation with Zgoubi and Scode.
   - Two codes give consistent estimation of dynamic aperture.
   - Francois commented that fine meshed data is essential to predict accurate trajectory. That was the case for AGS polarized protons with snake.
   - Mori-san asked if we could use 2D mid-plane field map and extrapolate the field in vertical direction to calculate dynamic aperture with larger vertical amplitude (3D TOSCA field map only allows up to 3 pi mm mrad in vertical direction because data is available only up to 10 mm).
   - There was a lot of discussions on this. Scott pointed out extrapolation becomes tricky when magnetic poles exist near the region we are interested.
   - Shinji has a concern whether we can specify enough order of Tayler expansion to represent the field to large vertical amplitude.
   - Malek reminded us of different emittance behaviors with 2D and 3D field map.
   - We will test more cases and hopefully continue discussion at the FFAG workshop.
   - Mori-san will provide finer 3D TOSCA data. This may be for Kyushu FFAG, but it is still useful to see how the results change with different mesh size.
   - Suzie asked the benchmarking plan. Shinji thought it is important to make more single particle comparisons because it is easy to identify the difference of the modeling in each code. It is also good to separate single particle effects and multi particle effects when something unexpected happens when we include multi particle effects. Malek hopes code comparison with space charge should be done soon.
   - Ishi-san shows Lie tracking results. It seems there are several factors which should be clarified to understand the results. Hopefully we will discuss them at the FFAG workshop.
2. Ishi-san reported the present status of RFQ.
   - Resonance frequency is higher than the previous one by 50 kHz. He considers adjusting amplifier to match the frequency.
   - DTL had enough tuner so that frequency can be the same as the new

RFQ.

- Phase difference between RFQ and DTL should be no problem with this level of frequency difference.
- Schedule may be delayed by a couple of weeks, but not much.

3. Discussion
   - hadron.kek.jp server will retire in March 2017. Mirror server has been set up at RAL thanks to Chris Rogers, http://ffag.pp.rl.ac.uk/colabo/, but this does not cover the entire hadron.kek.jp contents. Mori-san and KURRI team will investigate a possible replacement at KURRI.
4. Others

   There will be FFAG workshop in two weeks time from 6 September and we will fix the date of the next collaboration meeting at the workshop.