

## KURRI FFAG MEETING 19/10/2016

12:30

BlueJeans

### Attendees:

S. Sheehy, D. Kelliher, S Machida - RAL

M Haj Tahar, F. Meot, J. S. Berg - BNL

Y Ishi, T Uesugi - KURRI

### Minutes:

1. Report on the machine status by Ishi-san.
  - All machine is up.
  - Need realignment of RFQ because there is no steering magnets before RFQ.
  - Interlock modules has to be replaced.
  - Current schedule is to up the ring with beams in December.
  - Possibly, we can have machine development time in January or later.
2. Malek describes DA study.
  - Found there was non zero (although very small) Bx and By components on the mid-plane of TOSCA 3D data, which destroys antisymmetry.
  - Ensuring the antisymmetry increases DA around the injection.
  - Without fixing, DA is similar with and without vertical finite amplitude.
  - Different k-value in D and F magnet sometimes increase and sometimes decrease DA.
  - Vertical dynamic aperture is more important. However, we have to extrapolate beyond the region available.
3. Shinji discussed 2D and 3D field.
  - Btheta and Br is very linear with respect to z.
  - Btheta does not agree in 2D and 3D in the middle of F and D.
  - Br does not agree in 2D and 3D in the fringe field region.
  - Francois suggests Enge model as a global fitting function.
  - Scott proposes the good fitting of 2D mid-plane field. If we can get decent model, it derivatives tells how high order of z we should take into account.
4. Shinji went through experiment item in coming month.
  - Optimisation of RF programme.
  - Tomography in longitudinal space.
  - Beam loss during acceleration.
  - Coupling between H and V.
  - Dynamic aperture in H.
  - RF stacking on the outer orbits. This is a crucial demonstration for future FFAG design.
5. Next meeting
  - 30 November 2016.