KURRI FFAG MEETING 16/11/2017
BlueJeans VC meeting

Attendees:
S. Sheehy – Oxford
D. Kelliher, S. Machida, C. Prior, C. Rogers – RAL/ISIS
J. B. Lagrange, CERN
Y. Ishi, T. Uesugi, H. Okita, Y. Fuwa- KURRI

1. Ishi-san:
   - Reporting on behalf of Mori-san – they have achieved injection, circulation and acceleration (serpentine) in the MERIT ring. A presentation by Mori-san will be made soon.
   - The KURRI team have managed to inject and accelerate around 5 times more beam in the main ring compared to 1 month ago, so a good improvement. However LINAC transmission is still not great. Achieved 24 msec from injection start and are starting extraction studies now. It is not clear for now if the loss points are the same, as the working point has been moved.
     - Main change was phase between the RFQ and DTL1 linac tanks, which has improved the output, optimised using FC right before the main ring to analyse the beam at 11MeV.
     - Discussion over longitudinal acceptance in main ring. May need to measure beam characteristics from LINAC to achieve optimal injection. At present the schedule is fairly tight so this may have to wait a few months.
   - Presented updated schedule. In March, we'll be able to do beam studies sharing with the MERIT study. They aim to achieve higher intensity by March.

2. David – presentation on what we can measure using the co-ordinate data
   - He identifies sidebands in FFT spectrum of turn-by-turn tracking data to reconstruct (via iFFT) the deformed phase-space ellipse for high amplitude particles.
   - Discussion:
     i. During tune measurement, we have an RF shaker to set up the oscillation. At lower energies a larger amplitude is induced by the shaker so you can continue to see the coherent oscillation even after the beam is kicked. There is also decoherence due to energy spread – (why is this different at higher energy?)
     ii. Is it possible to vary the amplitude you kick to? Can change the amplitude of RF shaker power and duration…
     iii. In tune measurement we use real time spectrum analyser – data can be saved in some internal format or the screen shot. Request to Ishi-san to see if he can find some tune-measurement data from the RTSA to send to David.

3. Shinji – presented slide on experimental plans
   - Presented some questions on data/machine for Ishi-san.

- Bunch monitor signal is available for the test of tomography software. They can take the data tomorrow morning!
- There is RF shaker in H and V so that tune can be measured at arbitrary momenta.
- Scraper in both H and V are available. In V direction, it need manual control.
- Wave form generator is the same as before, but let us check how Uesugi-san set up the parameters before the experiment.
- No further simulation study on beam stacking at high energy.

4. Access to server – having a few issues. Chris Rogers gave a bit of an update
5. Next meeting is set at 18th January 2018