Minutes of KURNS Video Conference meeting 8 May 2019

attendees: Y. Ishi (YI), JB. Lagrange (JB), S. Machida (SM), D. Kelliher (DK), T. Uesugi (TU), C. Rogers (CR), L. Martin (LM), C. Prior (CP), C. Brown (CB)

May 8, 2019

1 KURNS plans (YI)

- ◇ machine in good shape, but in last experiment, intensity down (1/2) probably because injection error in HMBT (change due to MERIT experiment), but can be recovered.
- ◇ schedule: measurement of the tune in the next 2 weeks. A. Sato experiment from 27/05/2019 on detector calibration (linac only). ADS experiment scheduled this autumn. Student experiment on October 7th. A. Sato experiment in November on high energy detector calibration (MR).
- ◇ SM asked if it is possible to spend time on longitudinal damping experiment, 1 or 2 days. YI said ok after Sato san?s experiment, in the first week of June.

2 Tomography (DK)

- ◇ discussion on the sign of the RF voltage (gap voltage is used, not AWG output). zero-phase corresponds to negative slope (slide 2). voltage curve seems to be inverted. TU will check polarities.
- ◇ high frequency signal spotted with beam (47MHz) maybe cable?
- ◇ question on RF phase value in slide 5
- ◇ strong third harmonic component in the RF signal. would distort the RF bucket. TU guesses it could be due to the non linearity of amplifier.
- ◇ SM asks what is the RF waveform without beam. DK checked and the behaviour is the same with and without beam.
- ◇ SM: big question is why the synchrotron tune is smaller than expected.

3 Longitudinal space charge (SM)

- ◇ space charge electric field estimation seems smaller than previously expected. More detailed values are needed to go further.

4 AOB

Next meeting 30th May 2019.