Report from multi-particle weak-strong beam-beam simulation with modified SixTrack

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1. Four conditions simulated

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Job1- Job200:    IRerrcorr_BB68_noBBC, 250GeV , e7
            El=1 eV.Sec,   optics  matched

Job201- Job400:  IRerrcorr_BB68_halfBBC, 250GeV , e7
            El=1 eV.Sec,   optics matched


Job401- Job600:  IRerrcorr_BB68_noBBC, 100GeV , e7   (0.695, 0.685)
            El=1 eV.Sec,   optics not  matched , 1.5e11, beta=0.9

Job601- Job800:  IRerrcorr_BB68_noBBC, 100GeV , e7  (.685, 0.695 )
            El=1 eV.Sec,   optics not matched,  1.5e11, beta=0.9
```

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Tracking condition: 12800 particles, 10^7 turns

Emittance calculation:

Data were written up to 9*10^6.

For condition 2, some lines with corrupted data skipped.

For condition 3, one job (64 particles)'s corrupted output data replaced with good data.

cut=6 sigmas were applied to calculate the emittances and bunch intensities.

2. Results are on line.

3. Discussion:

--> our emittance calculation resolution is about 0.1% ~0.2%.

--> Seems emittance changes not big in 2 mins.

--> However, particle loss is significant.

--> Luminosity is decided by fast particle loss.

---> More checks to these data are needed.

e.g. 1) particles move in-out a boundary

2) average J change

3) can we assume **X**mean=0 for emittance cal.

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that is, *how to interpret the tracking results*