

Miscellaneous from last meeting, LMC, discussions

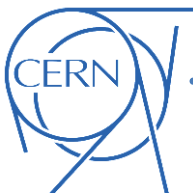
- **Cryogenic transient and limits**

- Feedforward control as in 2015 (only for 25 ns beams) → better formula for the expected e-cloud induced heat load, coefficients depending on the sector, scrubbing state, to be updated for 288b injections?
- Sectors 23 and 78 can now sustain 160 W/hc (last year limit was ~135 W/hc), potentially even a larger load but this may clash with availability (loss of CM in Q6 due to slope)

- **Scrubbing with some beam screens at higher temperature (~100 K)** → This may cause more cryogenic power needed for the cold mass and therefore reduce the cooling capacity for the beam screen, but should not be a problem if limit ourselves to a few cells per sector

- **ADT diagnostics:** ObsBox for offline analysis of bunch-by-bunch tunes, but also need for a subset of data to be made available on line during the injection process to spot possible instabilities

- Final implementation in Timber of the variables for expected **heat load from impedance + synchrotron radiation**



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- Machine settings for scrubbing
 - As in 2015, we will probably need **high chromaticity** ($Q'_{x,y} \approx 15$), **octupoles** (≈ 20 A), **high damper gain** (knob values different from last year's)
 - **Low working point** (.27, .295) as we need space to accommodate the electron cloud tune spreads \rightarrow when possible before the scrubbing run, few hours **test with single bunch** to explore how low the horizontal tune can be set as well as check with the experts the functionality of the ADT wrt tune variations (maybe Sunday – S. Redaelli)
- 25 ns beam in injectors (H. Bartosik), set up of multi-bunch injections, set up of transverse damper for 25 ns operation \rightarrow assumed done before scrubbing
- **TDI 'consignes'** will be given in the next weeks, before the scrubbing run (A. Lechner)
- **MKI vacuum** interlock levels, to be discussed with M.

Barnes

	Apr			Scrubbing	May	
Wk	14	15	16	17	18	
Mo	4	11	18	25	2	
Tu						
We						
Th	Recommissioning with beam			↓	Ascension	
Fr					May Day comp	
Sa						Intens Scrubbi
Su				1st May		