Tuesday 15 June

Summary of longitudinal emittance blowup:

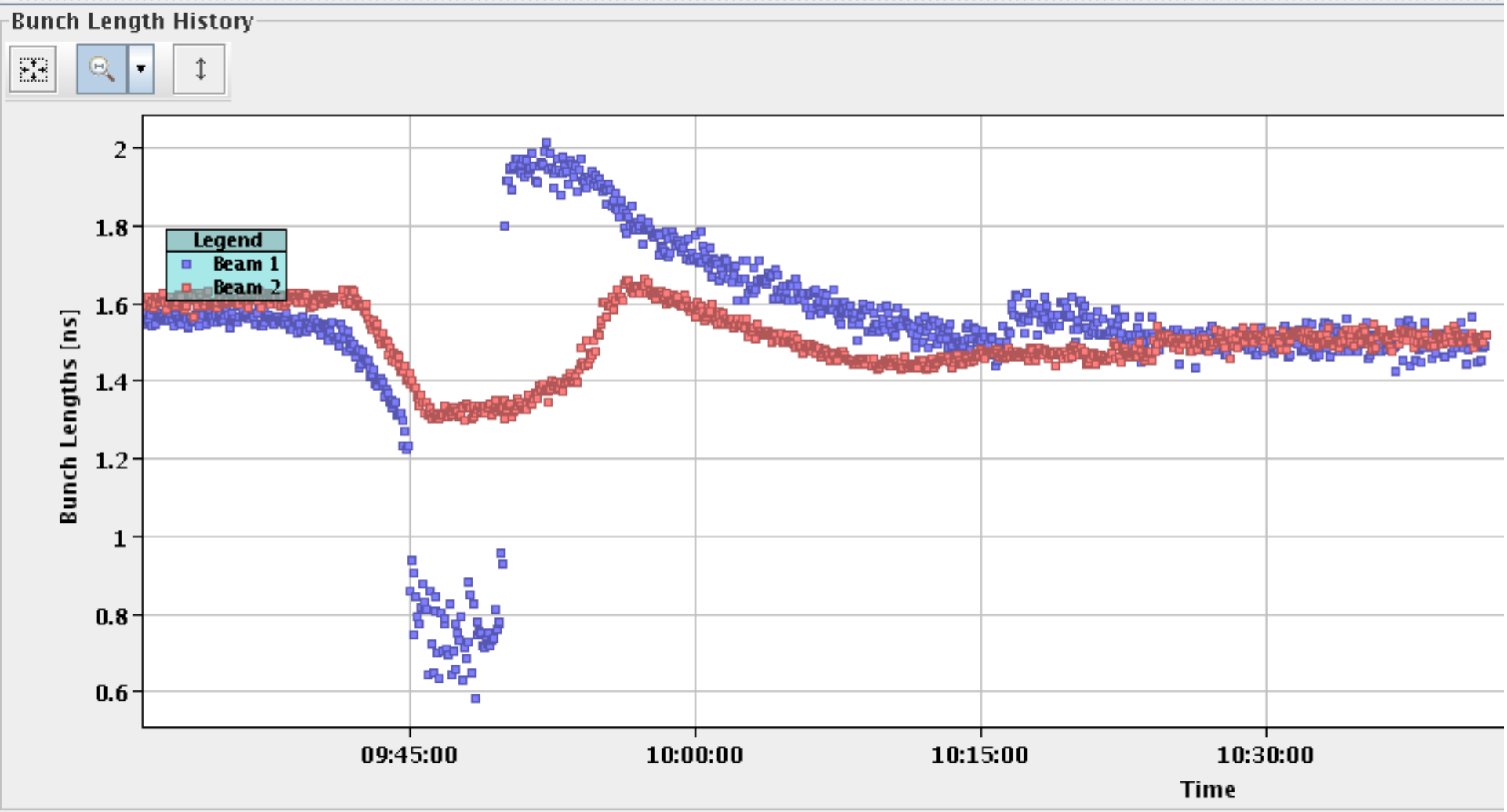
The longitudinal blowup was tested, including feedback on the bunch length measurement (BQM). The feedback controls the noise amplitude to converge on the target bunch length.

Using a nominal bunch, blown up in SPS to 0.6 eVs.
The target bunch length was set to 1.5ns.

The bunch length was seen to converge nicely to 1.5 ns for beam 2. Beam 1 was lost almost entirely early in the ramp (tune), but enough was left to give a bunch length measurement and it also eventually converged to 1.5 ns.

Triggering of the blowup functions via the "start power converter" timing event was also tested. This was manually armed before the ramp (needs a sequencer task to automate this).

Tuesday 15 June



Tuesday 15 June

Summary collimation setup (R. Bruce, D. Wollmann, R. Assmann):

- Continued weekend effort on collimation setup for high intensity bunches at 3.5 TeV (separated, not squeezed)
- Relaxed BLM thresholds at collimators for setup did help
- Completed 18 skew collimators, 8 horizontal collimators and 9 vertical collimators for the two beams.
- With smallest beam size down at 160μm, had to go to very small gaps and step sizes of 5-10 micron (below specification of 20μm). Saw first effects of mechanical vibrations of the other jaw.
- All completed, except 1 vertical TCSG for beam 2, the 4 TCL's (not needed for lumi must probably be done with excited beam). Some suspicious results verified by redoing.
- Tomorrow need to complete last collimator for beam2 and to check some systematics. Then need to recalibrate TCT's for separation off and squeeze.

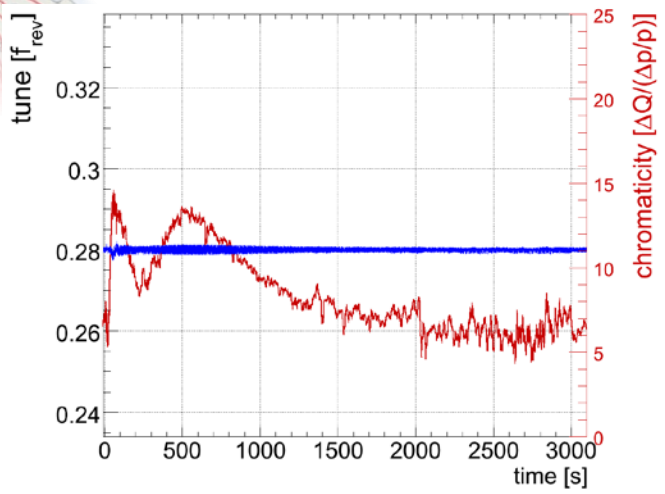
Tuesday 15 to Wednesday 16 June

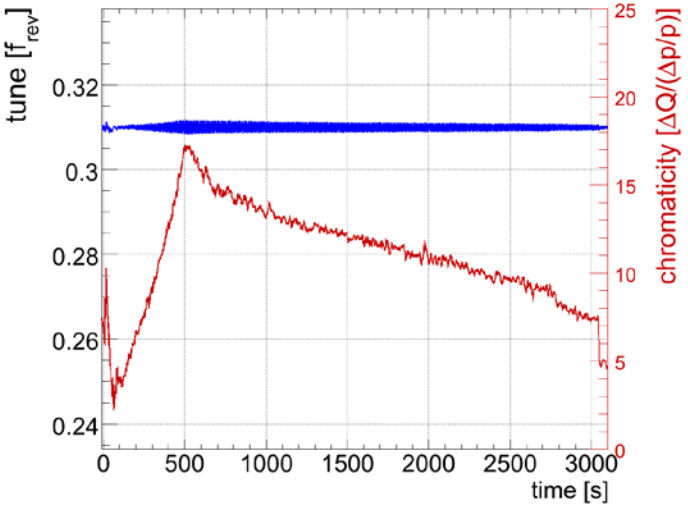
Operational checks : injection to squeeze at 3.5 TeV (Laurette Ponce and Guy Crockford):

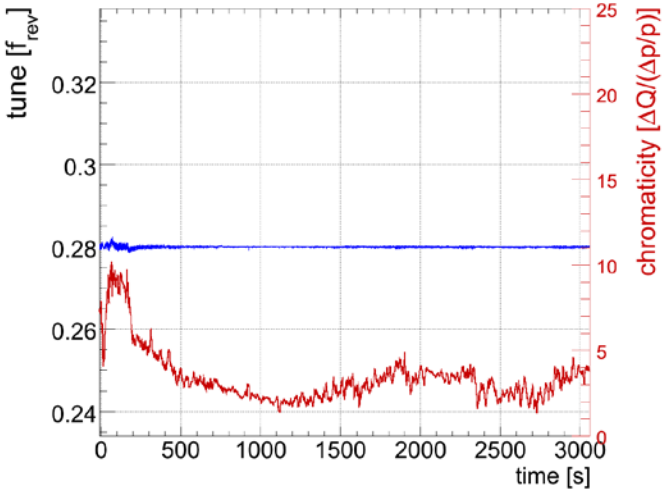
- Performed injection, ramp, squeeze with separated beams and tune + orbit feedbacks ON during the ramp and squeeze.
- Reached 3.5 m very smoothly without having to correct any parameters (orbit reference for the orbit feedback was the same all along the process).

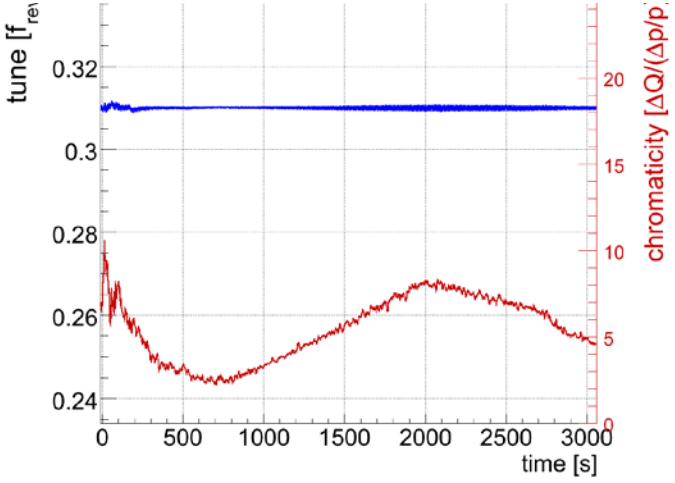
Tuesday 15 to Wednesday 16 June

- Chromaticity measurement with feedback ON (R. Steinhagen). Feed-forward done (first iteration)









Wednesday 16 June

Issues:

- AC dipole: request an access in Point4 to reset the circuit breaker – Javier Serrano and ABT piquet
- MKI8: request an access 1-2hrs for the injection kicker delay – Etienne Carlier
- QH power supply for dipole B22.L7 (sector 67) needs to be replaced at the next occasion of an access
- Point 7: access for a water pump (sump)

What's next?

16	Wed	7:00	2	Access for 12 60A correctors in S78, Identified as a world FIP repater problem
16	Wed	9:00	3	Pre-cyle + Inject + ramp, 1e11 for collimator setting up at 3.5 TeV, 10m
16	Wed	12:00	8	Collimator setting up at 3.5 TeV, 10m, with separation ON, 1e11/beam --> O.K.
16	Wed	20:00	2	Ramp-down combo
16	Wed	22:00	8	HUMP studies and Controlled longitudinal emittance blow -up, 450 GeV, multi-bunches - TBC