Minutes of the HSC section

36th meeting on Wednesday 25/02/2015 (09:00, 6/2-004)

HSC members: Olav Berrig (OB), Christian Carli (CC), Elias Metral (EM), Giovanni Rumolo (GR), Frank Schmidt (FS), Elena Wildner (EW), Elena Benedetto (EB), Michael Bodendorfer (MB), Kevin Li (KL), Tatiana Pieloni (TP), Benoit Salvant (BS), Guido Sterbini (GS), Daria Astapovych (DA), Meghan McAteer (MM), Nicolas Mounet (NM), Carlo Zannini (CZ), Nicolo Biancacci (NB), Alexander Huschauer (AH), Giovanni Iadarola (GI), Adrian Oeftiger (AO), Serena Persichelli (SP), Tatiana Rijoff (TR), Letizia Ventura (LV), Claudia Tambasco (CT), Magdalena Kowalska (MK), Andrea Passarelli (AP), Annalisa Romano (AR), Michael Schenk (MS), Vincenzo Forte (VF), Danilo Banfi (DB), Javier Barranco (JB), Joseph Kuczerowski (JK), Aaron Paul Axford (APA), Malte Titze (MT).


1) Newcomers / visitors

- None.

2) Comments on the minutes of the previous 35th meeting + Actions

- No comment.


3) General infos

- No particular comment from anyone.

- SL meeting:

  - Building 774 opened this next.

  - In May, there will be a 60th anniversary of the Staff Association.

  - HUG will install a medical service (SMUR) on the CERN site, serving CERN and the local area. But calling the Fire Brigade is still the procedure.
- Meyrin Auditorium: Not ready before the end of March.

- Travel Per Diems for travel will be adapted each year (to be more reactive to exchange rates).

- LMC:

  - Sector 8-1 goes slowly. Working group will be set up.

  - The potential gains, and bottlenecks to exploiting BCMS were discussed. More studies on these are needed. The maximum number of bunches will be limited and interlocked for upcoming studies.

  - Sector test – both directions will be sector tested 5-9 March.

  - An aperture measurement session has been dropped from the sector test, and moved to circulating beam (which is more efficient).

  - The cooling of the SPS needs increasing for LIU, the proposal requires about 5MCHF and funds need to be found.

4) Detailed presentations and discussions of the LHC injectors MDs linked to collective effects (motivations, goals, detailed plan, people participating, priority, etc.) => All the people concerned


- Try also to measure the transverse tune shift vs. chromaticity to compare with the model and also with the PS machine where a difference has been observed between the model and the measurements.

- Discussion about the space charge tune spread from a QPU to be measured with unsplit and split tunes to be able to compare to predictions.

- PS studies (LIU oriented) => GuidoS: https://espace.cern.ch/be-dep/ABP/HSC/ layouts/xlviewer.aspx?id=be-dep/ABP/HSC/Meetings/PS_MD.xlsx&Source=https%3A%2F%2Fespace%2Fcern%2Fch%2Fbe%2FDep%2FABP%2FHSC%2FMeetings%2FForms%2FForms%2FAllItem%2Fspx%3Fpaged%3DTRUE%26p%5FSortBehavior%3D0%26p%5FFileLeafRef%3DInstability%255freview%255fupdate%255fhingle%255fbeam%255fblis%255fpd%2526p%5FID%3D33%26PageFirstRow%3D91%26View%3D7BE37F81BF%2D7766%2D4968%2D9BD7%2DE91008DB654E%7D&DefaultItemOpen=1.

- For space charge (based on recent results from RaymondW, which could not yet be discussed in the SC working group), the best quadrant seems to be the quadrant 7-8 and 7-8.

- In the PS, for the QPU measurements there will be also the possibility to excite the quadrupolar mode with a kicker (in the SPS, only the injection error can/will be used).
- Discussion about the fully coupled optics at injection by YannisP => 2 motivations:

  1) The SC tune spread is asymmetric. By coupling the 2 transverse planes, we want to transfer some vertical tune spread to horizontal and thus try and gain a bit in the space available in the tune diagram.

  2) This optics introduces some vertical dispersion, which increases the beam size and therefore reduces a bit the SC tune spread.

- Another possible check of our SPS (longitudinal this time) impedance model => Crossing transition with beams for fixed-target experiments. Reminder: there is no gamma-jump in the SPS and some measurements of the longitudinal oscillations can be easily performed.

5) Actions to be taken for the next meeting

- List of all actions: https://espace.cern.ch/be-dep/ABP/HSC/SitePages/Actions.aspx.

6) Miscellaneous

- The next (37th) meeting will take place on **02/03/2015** => Agenda:

  1) What RADE (http://cern.ch/rade) can do for you (Adriaan Rijillart, EN/ICE/MTA)?

  2) Follow-up of last meeting concerning the PSB MD requests (ElenaB).

  3) General info, follow-up and AOB (EliasM)

- Important events and dates for HSC: https://espace.cern.ch/be-dep/ABP/HSC/SitePages/EventsAndDates.aspx.

- Preliminary agendas for the next meetings: https://espace.cern.ch/be-dep/ABP/HSC/SitePages/MinutesOfMeetings.aspx.


Minutes by E. Metral, 27/02/2015.