

The purpose of the CERN SC Collaboration Meeting 2014

1. In **April** last year we have convened the **CERN-GSI joint SC-2013 workshop**. This has started a new series of workshops to take place every **second year**. The next one will be at the **Oxford college, Trinity in March 2015**.
2. The next event is **HB** which will in fact be only in **November** of this year, so rather late.
3. We therefore thought that we would need an **earlier meeting (not in competition with the major workshops!)** with all our collaborators in **May 2014** to discuss the **immediate needs** of our **SC studies** in view of the **LIU upgrade**. In particular, since we are now **restarting** the **LHC pre-accelerators** and will restart **beam experiments** at those machines.

Reviewing the lessons learned at the SC-14 workshop

1. Requirements for SC codes (PIC/Frozen SC/Alternatives):
 - Fully operational and benchmarked lattice design tool, e.g. PTC, CHEF
 - SC Benchmarking with the GSI benchmarking suite
 - Special features: time varying fields, double RF, acceleration
 - Code benchmarking with experiments
 - Code availability including support for external modules
 - Speed and platform

→ Full release!
2. Do we now 'fully' understand the noise and can we live with it, i.e. can we go to large number of turns with PIC codes?
3. How well can we reproduce the experiments with codes, in particular for the PSB & PS?

Next Steps

- When will we have a **code release** ready of at least **2 PIC codes**?
- Study: **Validity tests** of **PIC** versus **Frozen SC** fully established!
Alternatives?
- What **hardware and support** is required for **realistic simulations** of our machines?
- Do we have the proper **non-linear lattice models** of our machines? Is our effort sufficient? Can we measure it?
- Which experiments should be **envisaged** for a **full code versus experiment benchmarking**?
- Is our **theoretical understanding sufficient**?

Some technical Points

- For tonight's dinner we see at the **Foyer** at **7pm sharp**.
- We walk over to the **tram** and take **public transportation** to and fro the restaurant.
- We will be back at **CERN** before **midnight** and the first session on **Wednesday** will start at 9:00 am.
- Please have **3.50 Suisse Francs ready either way**, however **credit card** should work as well.
- On our way we will pick up **Giuliano**.
- Wednesday midday we will take the **workshop photo** so please come with me after the talks that should end **12:00am**.