

# LHC RF Meeting

14th January 2009

**Participants:** Luca Arnaudon, Oliver Brunner, Vittorio Rossi, Urs Wehrle, Joachim Tuckmantel, Trevor Linnecar, Edmond Ciapala, Andy Butterworth, Wolfgang Hofle, Thomas Bohl, Wolfgang Weingarten, Daniel Valuch, Elena Shaposhnikova, Maria Elena Angoletta, Eric Montesinos,

## 1. LHC status

- ✚ **Repair status:** Last week the last damaged magnet was taken out (58 magnets in total), 5 are now back in. Still some to be taken out from 1-2. A broken PIM has been found in sector 1-2, and there is 1 suspicious dipole in sector 6-7. The decision whether to take it out will be taken in Chamonix, taking into account the energy planned for 2009 running.
- ✚ **Sector 4-5:** Cooling down, liquid He available by March. The plan is to install short circuits by the beginning of March, and commission the RF stations before the end of March. The RUX45 roof will be closed at the beginning of April.
- ✚ **Sector 3-4:** All installation will be finished by end March, followed by interconnect work and then vacuum flushing. It should be cold by mid-July, including the cavities.
- ✚ **Vacuum chamber contamination:** No investigation has yet been done in the straight section, the vacuum group are still looking at 10 contaminated dipoles.

## 2. ADT

- ✚ All amplifiers are back in the tunnel. Water cooling has been switched on as a test.

## 3. ACS

- ✚ **Tuner repairs:** 2 cavities are finished, the necessary cables for all cavities have been ordered.
- ✚ **UX45 klystrons:** All focus supply connectors will be replaced (many were found to be burnt).
- ✚ **Driver amplifiers:** It is perhaps not necessary to replace all the drivers immediately as the LARP tools under MATLAB will allow remote adjustment of the phase. However we should proceed with plans to replace them.

## 4. LLRF

- ✚ **Faraday cage cooling:** The modification has been approved and signed, and the work will be done during February.
- ✚ **Power supplies:** The new 3.3V power supplies are under test in the lab. 2 units are under test, with no failure yet. An offer has been received; the decision is still to be taken whether to replace all supplies. The 6V supply also has problems but no failures have been seen so far.

## 5. APW

- ✚ 1 pickup has been assembled from spare parts, and can be used as a spare. Spare feedthroughs have been successfully tested thermally. Now they will undergo electrical tests and qualification by the vacuum group. There are no plans to open the vacuum in the sector this year. There would be some risk to the pickups from an eventual bakeout.

## 6. SM18

- ✚ The 18kW plant is under maintenance until the end of January. It will be connected in week 7 (2nd week of February).

## 7. Commissioning note

- ✚ Contributions have been received from many people. Outstanding contributions should be sent to Trevor by the end of next week please. The note should focus on what problems we solved in the various systems during commissioning, and what still needs to be done. The order can be chronological or otherwise.

