



Contribution ID : 724

Type : **Oral presentation**

The High Luminosity LHC Project Status and Perspectives

Thursday, 3 July 2014 11:25 (25)

The High Luminosity LHC project is now entering in the final stage of design. Aimed at improving the LHC reach in integrated luminosity for 300 to 3000 fb⁻¹, the project relies on a few novelties: 1) use of a special optics, the achromatic telescopic squeeze to enhance beam matching and chromaticity correction beyond the present LHC possibility; use of advanced magnet technology based on Nb3Sn to double the inner triplet quadrupole aperture; use of RF crab cavities to rotate the beam at the collision points. Progress on these and other advanced technologies, being developed for managing the doubling of the beam current, will be reported; the last developments on the issue of pile up and pile up density will be reported, too. Finally an overview of the schedule and of project implementation will be discussed.

Summary

Primary author(s) : Prof. ROSSI, Lucio (CERN)

Presenter(s) : Prof. ROSSI, Lucio (CERN)

Session Classification : Accelerator Physics and Future Colliders

Track Classification : Accelerator Physics and Future Colliders