

Lessons from LHC operation in 2015

Monday 25 January 2016 09:00 (30 minutes)

<P> In 2015 the LHC entered the first year of its second long Run, and the first collisions at 13 TeV CoM were delivered to the experiments on 3 June, after two months of beam commissioning. The rest of the year was characterized by a stepwise increase in the number of bunches that allowed reaching 2244 bunches/ring and a peak luminosity of $5 \times 10^{33} \text{cm}^{-2}\text{s}^{-1}$, for a total of just above 4fb^{-1} delivered to the high luminosity experiments. While the machine efficiency was hampered by many different issues related to the high intensity and high energy, the luminosity performance was excellent, thanks to little losses and good emittance preservation through the cycle, in combination with excellent luminosity lifetimes in physics. This presentation reviews the 2015 proton-proton physics performance and the parameters that allowed reaching it. It also collects relevant input presented at the Evian workshop that is not collected elsewhere in this workshop. </P>

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