

# LHC Availability - Status and Prospects

*Tuesday 26 January 2016 08:55 (35 minutes)*

<P>Increasing LHC availability is one of the key challenges for improving luminosity production in the next years and particularly in view of HL-LHC. Both hardware performance and beam-related effects have an impact on the achieved availability and are directly influenced by the LHC operating conditions (e.g. in terms of radiation levels, number of beam-induced quenches, etc.). A review of the lessons learnt during LHC Run 1 and in 2015 and possible extrapolations to future operational scenarios will be given. For hardware systems, the so-called availability matrices, highlighting the main systems failure modes and foreseen mitigation strategies will be presented. A breakdown of the turnaround time will be derived based on the experience with the 25 ns Run in 2015. Predictions of luminosity production will be presented based on the identified scenarios for future LHC Runs. </P>

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**Session Classification:** Sessions 3 & 4: LHC Hardware Performance

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