

# The CMS PIXEL Phase 1 CO<sub>2</sub> cooling system: Commissioning and operation of a large scale CO<sub>2</sub> system

*Wednesday 25 May 2016 09:45 (30 minutes)*

CO<sub>2</sub> evaporative cooling has been selected as cooling method for the CMS PIXEL Phase 1 detector upgrade. With the needs of 2 x 15 kW at -20 °C, it makes the CMS PIXEL Phase 1 CO<sub>2</sub> cooling unit the largest system of its kind. After presenting the system and its prototype, we will focus on the commissioning and operation experience of such a large system. In particular, we will develop the performances achieved, the back-up procedures and the 24/7 operation.

## Summary

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