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Commissioning of a Burn-In Setup for PS and 2S Detector Modules for the Upgrade of the CMS Outer Tracker — ●ANA VENTURA BARROSO, KATERINA LIPKA, and PAUL SCHÜTZE — DESY, Hamburg, Germany

The high luminosity LHC Upgrade will increase the instantaneous luminosity by a factor of five. The CMS detector will be upgraded in the so called Phase-2 Upgrade in order to meet the new requirements, among others the level of radiation tolerance and coping with larger pileup and thus higher data rates, as well as to add triggering capabilities. The entire silicon tracker will be replaced. The Outer Tracker (OT), consisting of macro-pixel and strip detectors, will be based on silicon modules that must operate at low temperatures (-33° C) due to the exposition at high radiation levels. The probability for defective electronic components to fail is higher after few hours of operation. Moreover, temperature cycles can induce mechanical stress. Therefore a burn-in procedure as well as thorough quality control is needed to ensure the correct operation of each of the OT modules before installation.

For this, a burn-in system is being commissioned at DESY. This setup will perform thermal cycles from room to operation temperature and key measurements to ensure the good performance of the modules. In this talk, the status of the DESY burn-in setup as well as first tests will be presented.

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