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## Electronics for HL-LHC: Challenges and Outlook

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To further extend the ultimate physics reach of the experiments at the Large Hadron Collider (LHC), a series of accelerator and experimental upgrades are planned in 2014 (phase 0), 2018 (phase 1) and 2023 (phase 2). The phase 2 machine upgrade, called the High Luminosity-LHC (HL-LHC), is foreseen to increase the instantaneous luminosity by a factor five with a total integrated luminosity of 3000 fb<sup>-1</sup>. ATLAS and CMS plan an upgrade involving the replacement of some of their detectors (e.g. new trackers) and the replacement of almost all the trigger and readout electronics. The predicted high particle rates will lead to a higher number of readout channels (higher granularity detectors), higher trigger and data rates and intense radiation doses imposed on the front-end electronics.

This presentation summarizes the challenges which the readout electronics will face, as well as the on-going and future developments.

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