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Recent results from CMS and ATLAS & Phase-II detector upgrade

The Standard Model (SM) theory of Particle Physics has been very successful in explaining a large number of physics processes.
However, the theory is incomplete as it doesn't address the problems such as neutrino masses, dark matter, dark energy, and many more.
This requires us to look at the physics processes beyond SM. The two general-purpose detectors at LHC, namely CMS and ATLAS, allow
us not only to test the SM predictions but also to look for physics beyond Standard Model. As we aim for higher and higher intensity beams, the performance of detectors and associated electronics gets weaker. The two experiments plan to have major detector hardware upgrades during 2026-2028. In this talk, I will discuss the recent physics results from two experiments and the planned detector upgrades.

Session

Plenary

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