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LHCb status and overview

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The LHCb experiment is purposed to study the properties of the beauty and charmed particles decays. In such decays the search for the physics beyond the Standard Model is performed in an indirect way, as one expects contribution from non-standard particles and forces to become visible through the branching fractions of the rare decays, CP-asymmetries and many other observables. The LHCb detector provides a high efficiency for detection and reconstruction of the decays of the beauty particles produced in the proton-proton collisions. Exploiting the power of the LHC machine during the past two years LHCb has recorded ~3fb^-1 of data, which allowed to observe a number of new decays and increase the accuracy in measuring the effects, which have already been seen before. As the long technical stop is upcoming, an upgrade of both detector subsystems and trigger is planned for the LHCb, before the LHC will start working at its nominal energy and bunch crossing frequency.

The talk will include an overview of the LHCb detector, its current status and performance. The main highlights of the recent physics results and the plans for the upgrade will also be shown.

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