

LHCb experiment at CERN



LHCb Frascati group (*)



Particle physics is, after all, about exploring the unknown; the analysis of LHC data has led to thousands of publications and a wealth of new knowledge, and there is every possibility that there are big discoveries waiting to be made with further data and more innovative analyses. (T. Gershon, former LHCb physics coordinator, on CERN Courier, March 2018)



A further upgrade, called Phase-II Upgrade, has been proposed for the LHCb experiment in order to take full advantage of the flavour-physics opportunities at 2×10³⁴ luminosity. This Upgrade, which is foreseen for the 2030, will build on the strengths of the current experiment and the Phase-I Upgrade, but will consist of re-designed sub-systems that can operate at a luminosity ten times that of the Phase-I Upgrade detector. **New detectors and systems are already under study (see mRWELL and SMOG2 posters)**.