

# Detector challenges from HL-LHC to FCC

*Monday, May 24, 2021 7:55 AM (30 minutes)*

The HL-LHC poses some serious challenges to particle detectors, with a luminosity of  $5 \times 10^{34} \text{ cm}^{-2}\text{s}^{-1}$ , a pileup of up to 200 pp collisions per bunch-crossing and hadron fluence of up to  $2 \times 10^{16} \text{ cm}^{-2}$  in the most exposed silicon sensors. The LHC community is at this moment preparing the detector upgrades for this project to be installed in the middle of this decade. The FCC-hh is a 100TeV next generation hadron collider, which will again increase the detector challenge by 1-2 orders of magnitude in terms of particle rates and radiation load. This talk will review the detector challenges at such a future facility.

## **TIPP2020 abstract resubmission?**

## **Funding information**

**Presenter:** RIEGLER, Werner (CERN)

**Session Classification:** Plenary