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## The upgrade of the CMS Outer Tracker detector

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### Content

The era of High Luminosity LHC (HL-LHC) will pose unprecedented challenges for detector design and operation. The planned luminosity of the upgraded machine is  $5 * 10^{34} cm^{-2} s^{-1}$ , possibly reaching an integrated luminosity of  $3000 fb^{-1}$  by the end of 2037. CMS Tracker detector will have to be replaced in order to fully exploit demanding operating conditions and delivered luminosity. The new detector will provide robust tracking as well as information for the first level trigger. The focus of this talk is the replacement of the CMS outer tracker system, describing new layout and technological choices together with some highlights of R&D activities.

### Summary

**Primary author(s) :** Mrs. LUETIC, Jelena (Université libre de Bruxelles)

**Presenter(s) :** Mrs. LUETIC, Jelena (Université libre de Bruxelles)

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