

## Abstract

The instant luminosity in the ATLAS experiment will be increased up to  $2 \cdot 10^{34} \text{ 1/(s cm}^2\text{)}$  after LHC phase-1 upgrade in 2018. Detectors not able to operate in such conditions should be replaced. The innermost detector (MDT and SCS) will be replaced by TGC (Thin Gap Chambers). The operation principles of the TGC will be discussed.