



Contribution ID: 99

Type: poster

## Recent results of the CKM angle $\gamma$ measurement at LHCb and prospect for Run III and Run IV

*Tuesday, 25 June 2019 13:30 (1h 30m)*

The CKM angle  $\gamma$  is the least precise measured parameter of the Unitary Triangle. Discrepancies between precise measurements of the CKM angle  $\gamma$  in the tree-level and loop dominated processes might provide evidence of New Physics - beyond the Standard Model. The value can be well determined by exploiting the interference between favored  $\bar{b} \rightarrow \bar{c}$  and suppressed  $\bar{b} \rightarrow \bar{u}$  transition amplitudes (e.g.  $\bar{b} \rightarrow \bar{c} \ell \ell$  decay). Selected results of the Cabibbo-Kobayashi-Maskawa (CKM) angle  $\gamma$  measurements, with special attention for  $\bar{b} \rightarrow \bar{c} \ell \ell$  decays family, obtained at the LHCb will be discussed. A quick overview of the upgrade of the LHCb spectrometer and prospect for future measurements during Run III and Run IV at LHC will be also presented.

**Primary author:** KRUPA, Wojciech (AGH UST)

**Presenter:** KRUPA, Wojciech (AGH UST)

**Session Classification:** Poster session