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Title of your contribution: Measurement of CKM angle gamma in Open Charm B Decays at LHCb.

The precise measurement of the γ of the Cabibbo-Kobayashi-Maskawa(CKM) Unitarity Triangle is one of the main goals of flavour physics. The γ is the least precised measured angle of the CKM unitarity triangle. It is defined as arg$[-V_{ud}V_{ub}^{*}/V_{cd}V_{cb}^{*}]$. The measurement of the γ angle in tree-level open-charm b-hadron decays is theoretically clean and provide a benchmark for the SM of the particle physics to explain the CP violation and to test the new physics contribution Beyond the Standard Model. By having precision measurement, LHCb experiment aims to improve the knowledge of γ. The sensitivity on γ angle can be determined from a variety of B-meson decay processes with the negligible theoretical uncertainties where the interference between two colour-suppressed $b \rightarrow cus$ and $b \rightarrow ucs$ tree-level amplitudes. The best precise measurement with Run1 and Run2 is obtained by the combination of the many decay processes which gives $\gamma = (67 \pm 4)^{\circ}$ where the uncertainty includes both statistical and systematic uncertainties. There are alternative methods to improve the sensitivity on γ. Among them brand new $B_s \rightarrow D^{0(*)}\phi \rightarrow$ analysis and more conventional mode $B^- \rightarrow D^0K^*$ has the potential to make a significant impact. For $B_s \rightarrow D^{0(*)}\phi$ mode where D meson is reconstructed in the quasi-specific modes $K\pi$, $K3\pi$, $K\pi\pi$ and CP-eigenstate modes KK, $\pi\pi$. Among these sub-decays I work on optimising the $D^0 \rightarrow K^-\pi^+\pi^0$ where the combination of two tracks and photons reconstructed in π^0. And for the $B^- \rightarrow D^0K^{*-}$ mode where K^{*-} decays to $K^{*-} \rightarrow K^-\pi^0$. The experimental difficulty of these modes is related to the neutral π^0 produced at LHCb. The first strategy is to fight against the combinatorial background from genuine of false π^0. The analysis including full datasets Run1 and Run2. And thesis also includes the detector studies with the new upgrade LHCb replaced its inner and outer tracking system by a single homogeneous detector based on plastic scintillating fibres (SciFi).