## Additional plots to be approved

Additional plots to be shown at conferences are presented in Figs. 4, 5 and 6.

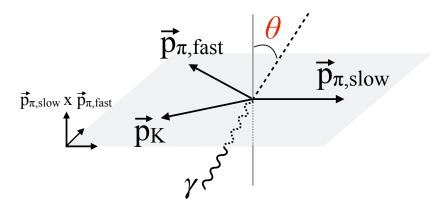


Figure 4: Sketch of a  $B^+ \to K^+ \pi^- \pi^+ \gamma$  decay in the rest frame of the hadronic system. The direction of the photon is given by the angle  $\theta$  between the direction opposite to the photon momentum and the normal to the  $K^+\pi^-\pi^+$  plane defined as  $\vec{p}_{\pi,\text{slow}} \times \vec{p}_{\pi,\text{fast}}$ , where  $\vec{p}_{\pi,\text{slow}}$  and  $\vec{p}_{\pi,\text{fast}}$  correspond to the momenta of the lower and higher momentum pions, respectively.

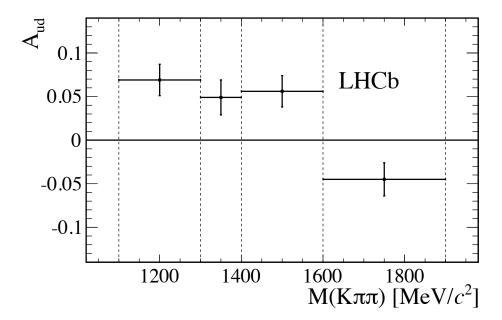


Figure 5: Values obtained for  $\mathcal{A}_{ud}$  from the angular fit shown in the Letter in each interval of  $K^+\pi^-\pi^+$  mass.

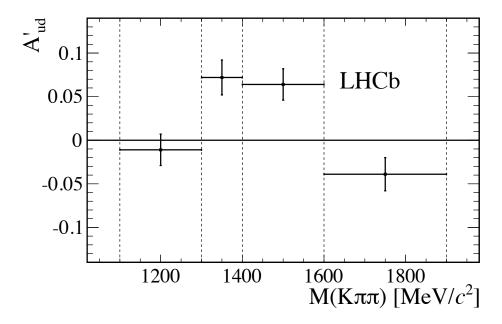


Figure 6: Values obtained for  $\mathcal{A}'_{ud}$  from the angular fit, using the alternative normal  $\vec{p}_{\pi^-} \times \vec{p}_{\pi^+}$  for defining the direction of the photon, in each interval of  $K^+\pi^-\pi^+$  mass.