

Looking for chiral anomaly in $K\gamma \rightarrow K\pi$ reactions

Monday, 6 June 2016 18:15 (0:20)

Collaboration

Abstract content

In an experiment currently being performed at the Institute for High Energy Physics, Serpukhov, Russia, a beam of charged kaons is directed on a copper target. In the electromagnetic field of the target nuclei two reactions occur: $K^+\gamma \rightarrow K^+\pi^0$ and $K^+\gamma \rightarrow K^0\pi^+$. A peculiar distinction between these two reactions is that there is a chiral anomaly contribution in the former reaction, but not in the latter. This contribution can be directly seen through comparison of the cross sections of these reactions near the threshold. In the talk the expressions for the cross sections will be presented.

The talk is based on arXiv:1512.04438.

Primary author(s) : VYSOTSKY, Mikhail (Institute for Theoretical and Experimental Physics); ZHEMCHUGOV, Evgenii (Institute for Theoretical and Experimental Physics)

Presenter(s) : ZHEMCHUGOV, Evgenii (Institute for Theoretical and Experimental Physics)

Session Classification : Parallel Session C6