



Contribution ID: 122

Type: **Oral presentation**

Production of the $Y(4260)$ state in B meson decay

Monday, 23 March 2015 16:30 (30 minutes)

We calculate the branching ratio for the production of the meson $Y(4260)$ in the decay $B^- \rightarrow Y(4260)K^-$. We use QCD sum rules approach and we consider the $Y(4260)$ to be a mixture between charmonium and exotic tetraquark, $[\bar{c}\bar{q}][qc]$, states with $J^{PC} = 1^{--}$. Using the value of the mixing angle determined previously as: $\theta = (53.0 \pm 0.5)^\circ$, we get the branching ratio $\mathcal{B}(B^- \rightarrow Y(4260)K^-) = (1.34 \pm 0.47) \times 10^{-6}$, which allows us to estimate an interval on the branching fraction $3.0 \times 10^{-8} < \mathcal{B}_Y < 1.8 \times 10^{-6}$ in agreement with the experimental upper limit reported by Babar Collaboration.

Primary author: Dr ALBUQUERQUE, Raphael M. (University of São Paulo)

Co-authors: Prof. ZANETTI, Carina (UERJ); Prof. NIELSEN, Marina (University of São Paulo)

Presenter: Dr ALBUQUERQUE, Raphael M. (University of São Paulo)

Session Classification: Hadronic structure - reactions, production and decays

Track Classification: Hadronic structure - reactions, production and decays