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The $T_{cs}(2900)$ in the hidden gauge approach and its spin partners

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Recently, the LHCb has reported the first flavor exotic state, the $X_0(2866)$ or $T_{cs}(2900)$. We recall the predictions made within the hidden gauge formalism of a bound state of $D^* \bar{K}^*$ with $I = 0, J^P = 0^+$, which is manifestly exotic, and we associate it to the state reported in the recent LHCb experiment. Fine tuning the parameters to reproduce exactly the mass and width of the state, we report two more states stemming from the same interaction, one with 1^+ and the other with 2^+ . For reasons of parity, the 1^+ state cannot be observed in $D\bar{K}$ decay, and we suggest to observe it in the $D^* \bar{K}$ spectrum. On the other hand, the 2^+ state can be observed in $D\bar{K}$ decay but the present experiment has too small statistics in the region of its mass to make any claim. We note that measurements of the $D^* \bar{K}$ spectrum and of the $D\bar{K}$ with more statistics should bring important information concerning the nature of the $X_0(2866)$ and related ones that could be observed. We propose different reactions where the spin partners of the observed states could be observed.

Authors: Dr L. R., Dai; Prof. EULOGIO, Oset (IFIC-UV); MOLINA PERALTA, Raquel; Dr BRANZ, Tanja

Presenter: MOLINA PERALTA, Raquel