

Latest D0 results on exotic hadrons produced in $p\bar{p}$ collision

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We selected candidate events for production of the exotic charged charmonium-like states $Z_c^\pm(3900)$ decaying to $J/\psi\pi^\pm$ and $X(3872)$ decaying to $J/\psi\pi^\pm\pi^\mp$. We use 10.4 fb^{-1} of $p\bar{p}$ collisions recorded by the D0 experiment at the Tevatron collider at $\sqrt{s} = 1.96 \text{ TeV}$. We measure the Z_c mass and natural width using subsample of candidates originating from semi-inclusive weak decays of b-flavored hadrons and search for the Z_c prompt production. We measure different production properties of the $X(3872)$, such as the prompt fraction as a function of the transverse momentum, that are compared to $\psi(2S) \rightarrow \psi\pi^\pm\pi^\mp$ production. The sample of 10.4 fb^{-1} is also used to search for the inclusive production of the pentaquark states observed in pp collisions at LHCb, $P_c(4400)$ and $P_c(4457)$, decaying to $J/\psi p$.

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Secondary track (number)

06

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