Contribution ID: **223** Type: **Parallel**

Studies of the $X^{\pm}(5568)$ state and Evidence for Zc±(3900) in b-flavored Hadron Decays at D0

Saturday 7 July 2018 14:00 (20 minutes)

We study the production of a narrow structure $X^{\pm}(5568)$ decaying to $B_s^0\pi^{\pm}$ produced in 10.4 fb^{-1} of $p\bar{p}$ collisions recorded by the D0 detector at the Fermilab Tevatron collider at $\sqrt{s} = 1.96$ TeV. We report evidence for the production of $X^{\pm}(5568)$ using the semileptonic mode $B_s^0 \to \mu^{\mp} D_s^{\pm} X$ with $D_s^{\pm} \to \phi\pi^{\pm}$. The results are consistent with the previous measurements by D0 of the production of $X^{\pm}(5568)$ using the hadronic decay $B_s^0 \to J/\psi\phi$. The mass and width of this state are measured using a combined fit of the hadronic and semileptonic data.

Authors: HIROSKY, Bob (University of Virginia (US)); TUCHMING, Boris (CEA Saclay); COLLABORATION, D0; DENISOV, Dmitri (Fermi National Accelerator Lab. (US))

Presenter: DENISOV, Dmitri (Fermi National Accelerator Lab. (US))

Session Classification: Strong Interactions and Hadron Physics

Track Classification: Strong Interactions and Hadron Physics