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Title:	Observation of a vector charmoniumlike state in $e^+e^- \rightarrow D^+sD^0s(2536)^- + c.c.$
Authors:	Patra, S. (/jspui/browse?type=author&value=Patra%2C+S.)
Keywords:	Hybrid mesons Quarkonia Lepton colliders
Issue Date:	2019
Publisher:	American Physical Society
Citation:	Physical Review D, 100(11).
Abstract:	Using a data sample of 921.9 fb^{-1} collected with the Belle detector, we study the process of $e^+e^- \rightarrow D^+sD^0s(2536)^- + c.c.$ via initial-state radiation. We report the first observation of a vector charmoniumlike state decaying to $D^+sD^0s(2536)^- + c.c.$ with a significance of 5.9σ , including systematic uncertainties. The measured mass and width are $(4625.9 + 6.2 - 6.0 (\text{stat}) \pm 0.4 (\text{syst})) \text{ MeV}/c^2$ and $(49.8 + 13.9 - 11.5 (\text{stat}) \pm 4.0 (\text{syst})) \text{ MeV}$, respectively. The product of the $e^+e^- \rightarrow D^+sD^0s(2536)^- + c.c.$ cross section and the branching fraction of $D^0s(2536)^- \rightarrow D^+K^-$ is measured from the $D^+sD^0s(2536)^- \rightarrow D^+K^-$ threshold to 5.59 GeV.
Description:	Only IISERM authors are available in the record.
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