Title:	Sensitivity study of Ds particle in Belle
Authors:	Deepanshu (/jspui/browse?type=author&value=Deepanshu)
Keywords:	Belle Detector Belle Experimental Setup KEKB
Issue Date:	Jul-2017
Publisher:	IISER Mohali
Abstract:	We know that Standard Model has shortcomings and we need New Physics beyond the Standard Model to explain those shortcomings. D S radiative de- cays may provide an opportunity to search for New Physics. In this MS the- ± ± sis work, the feasibility study was done for D S → ρ ± γ and D S → K* ± γ decays using Belle data was done for the first time. Belle detector was located at an interaction point of the KEKB asymmetric-energy e + e – collider (i.e. 8 GeV and 3.5 GeV respectively) at High Energy Accelerator Research Organisa- tion, KEK, Japan. As of now, it is being upgraded to Belle II detector. Belle Collaboration has collected large set of data at Y(4S) resonance. Along with this it also has large data collection of charm mesons. We generated signal MC sample using EvtGen. In order to identify D S mesons, we used tagging method using D S * □ D S γ. This helps in reduction of the background. To further reduce the background coming from the soft energy photons, we use π 0 veto, momentum of D S * in centre of mass frame. I also prepared skim- ming sample which can be used later on for this study.
URI:	http://hdl.handle.net/123456789/3631 (http://hdl.handle.net/123456789/3631)
Appears in Collections:	MS-11 (/jspui/handle/123456789/537)

Files in This Item:

File	Description	Size	Format	
MS11020.pdf (/jspui/bitstream/123456789/3631/3/MS11020.pdf)		3.23 MB	Adobe PDF	View/Open (/jspui/bitstream/123456789/3631/3/

Show full item record (/jspui/handle/123456789/3631?mode=full)

(/jspui/handle/123456789/3631/statistics)