



Library Indian Institute of Science Education and Research Mohali



DSpace@IISERMohali (/jspui/)
/ Publications of IISER Mohali (/jspui/handle/123456789/4)
/ Research Articles (/jspui/handle/123456789/9)

Please use this identifier to cite or link to this item: <http://hdl.handle.net/123456789/2487>

Title:	Measurement of the CKM angle ϕ_1 in $B^0 \rightarrow \bar{D}^0 h^0$, $\bar{D}^0 \rightarrow K^0 S \pi^+ \pi^-$ decays with time-dependent binned Dalitz plot analysis
Authors:	Bhardwaj, V. (/jspui/browse?type=author&value=Bhardwaj%2C+V.)
Keywords:	Violation parameter Analysis Time-dependent Measurements
Issue Date:	2016
Publisher:	American Physical Society
Citation:	Physical Review D,94(5).
Abstract:	We report a measurement of the CP-violation parameter ϕ_1 obtained in a time-dependent analysis of $B^0 \rightarrow \bar{D}^0 h^0$ decays followed by $\bar{D}^0 \rightarrow K^0 S \pi^+ \pi^-$ decay. A model-independent measurement is performed using the binned Dalitz plot technique. The measured value is $\phi_1 = 11.7^\circ \pm 7.8^\circ (\text{stat}) \pm 2.1^\circ (\text{syst})$. Treating $\sin 2\phi_1$ and $\cos 2\phi_1$ as independent parameters, we obtain $\sin 2\phi_1 = 0.43 \pm 0.27 (\text{stat}) \pm 0.08 (\text{syst})$ and $\cos 2\phi_1 = 1.06 \pm 0.33 (\text{stat}) + 0.21 - 0.15 (\text{syst})$. The results are obtained with a full data sample of $772 \times 10^6 B^+ B^-$ pairs collected near the $\Upsilon(4S)$ resonance with the Belle detector at the KEKB asymmetric-energy $e^+ e^-$ collider.
Description:	Only IISERM authors are available in the record.
URI:	https://journals.aps.org/prd/abstract/10.1103/PhysRevD.94.052004 (https://journals.aps.org/prd/abstract/10.1103/PhysRevD.94.052004) http://hdl.handle.net/123456789/2487 (http://hdl.handle.net/123456789/2487)
Appears in Collections:	Research Articles (/jspui/handle/123456789/9)

Files in This Item:

File	Description	Size	Format	
Need to add pdf.odt (/jspui/bitstream/123456789/2487/1/Need%20to%20add%20pdf.odt)		8.63 kB	OpenDocument Text	View/Open (/jspui/bitstream/123456789/2487/1/Need%20to%20add%20pdf.odt)

Show full item record (/jspui/handle/123456789/2487?mode=full)

(/jspui/handle/123456789/2487/statistics)

Items in DSpace are protected by copyright, with all rights reserved, unless otherwise indicated.

