



# 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/123456789/4643>

Title:	Measurement of Differential Branching Fractions of Inclusive $B \rightarrow X u \ell + v \ell$ Decays
Authors:	Patra, Sourav (/jspui/browse?type=author&value=Patra%2C+Sourav)
Keywords:	Lepton colliders Particle data analysis Monte Carlo methods
Issue Date:	2021
Publisher:	American Physical Society
Citation:	Physical Review Letters, 127(26).
Abstract:	The first measurements of differential branching fractions of inclusive semileptonic $B \rightarrow X u \ell$ decays are performed using the full Belle data set of 711 fb <sup>-1</sup> of integrated luminosity at the $\Upsilon(4S)$ resonance and for $\ell = e, \mu$ . With the availability of these measurements, new avenues for future shape-function model-independent determinations of the Cabibbo-Kobayashi-Maskawa matrix element $ V_{ub} $ can be pursued to gain new insights in the existing tension with respect to exclusive determinations. The differential branching fractions are reported as a function of the lepton energy, the four-momentum-transfer squared, light-cone momenta, the hadronic mass, and the hadronic mass squared. They are obtained by subtracting the backgrounds from semileptonic $B \rightarrow X c \ell$ decays and other processes, and corrected for resolution and acceptance effects
Description:	Only IISERM authors are available in the record.
URI:	<a href="https://doi.org/10.1103/PhysRevLett.127.261801">https://doi.org/10.1103/PhysRevLett.127.261801</a> ( <a href="https://doi.org/10.1103/PhysRevLett.127.261801">https://doi.org/10.1103/PhysRevLett.127.261801</a> ) <a href="http://hdl.handle.net/123456789/4643">http://hdl.handle.net/123456789/4643</a> ( <a href="http://hdl.handle.net/123456789/4643">http://hdl.handle.net/123456789/4643</a> )
Appears in Collections:	Research Articles (/jspui/handle/123456789/9)

Files in This Item:

File	Description	Size	Format
Need To Add...Full Text_PDF. (/jspui/bitstream/123456789/4643/1/Need%20To%20Add%e2%80%a6Full%20Text_PDF.)		15.36 kB	Unknown

[View/Open \(/jspui/\)](#)

[Show full item record \(/jspui/handle/123456789/4643?mode=full\)](#)

[Statistics \(/jspui/handle/123456789/4643/statistics\)](#)

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

