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Title:	Measurement of the $\tau$ Michel parameters $\eta$ and $\xi\kappa$ in the radiative leptonic decay $\tau \rightarrow l - \nu \tau \nu l \gamma$
Authors:	Bhardwaj, V. (/jspui/browse?type=author&value=Bhardwaj%2C+V.)
Keywords:	Lepton collider experiments Particle properties Electroweak model
Issue Date:	2018
Publisher:	Physical Society of Japan
Citation:	Progress of Theoretical and Experimental Physics, 2018(2)
Abstract:	We present a measurement of the Michel parameters of the $\tau$ lepton, $\eta$ and $\xi\kappa$ , in the radiative leptonic decay $\tau \rightarrow l - \nu \tau \nu l \gamma$ using 711 fb <sup>-1</sup> of collision data collected with the Belle detector at the KEKB $e^+e^-$ collider. The Michel parameters are measured in an unbinned maximum likelihood fit to the kinematic distribution of $e^+e^- \rightarrow \tau^+\tau^- \rightarrow (\pi^+\pi^0\nu\tau)(l-\nu\tau\nu l\gamma)(l=e \text{ or } \mu)$ . The measured values of the Michel parameters are $\eta = -1.3 \pm 1.5 \pm 0.8$ and $\xi\kappa = 0.5 \pm 0.4 \pm 0.2$ , where the first error is statistical and the second is systematic. This is the first measurement of these parameters. These results are consistent with the Standard Model predictions within their uncertainties, and constrain the coupling constants of the generalized weak interaction.
Description:	Only IISERM authors are available in the record.
URI:	<a href="https://academic.oup.com/ptep/article/2018/2/023C01/4907992">https://academic.oup.com/ptep/article/2018/2/023C01/4907992</a> ( <a href="https://academic.oup.com/ptep/article/2018/2/023C01/4907992">https://academic.oup.com/ptep/article/2018/2/023C01/4907992</a> ) <a href="http://hdl.handle.net/123456789/2170">http://hdl.handle.net/123456789/2170</a> ( <a href="http://hdl.handle.net/123456789/2170">http://hdl.handle.net/123456789/2170</a> )
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