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Title:	Search for lepton-flavor-violating tau-lepton decays to $\ell\gamma$ at Belle
Authors:	Bhardwaj, Vishal (/jspui/browse?type=author&value=Bhardwaj%2C+Vishal)
Keywords:	tau-lepton decays lepton-flavor-violating Belle
Issue Date:	2021
Publisher:	Springer Nature
Citation:	Journal of High Energy Physics, 2021(10).
Abstract:	Charged lepton flavor violation is forbidden in the Standard Model but possible in several new physics scenarios. In many of these models, the radiative decays $\tau_{\pm} \rightarrow \ell\pm\gamma$ ($\ell = e, \mu$) are predicted to have a sizeable probability, making them particularly interesting channels to search at various experiments. An updated search via $\tau_{\pm} \rightarrow \ell\pm\gamma$ using full data of the Belle experiment, corresponding to an integrated luminosity of 988 fb^{-1} , is reported for charged lepton flavor violation. No significant excess over background predictions from the Standard Model is observed, and the upper limits on the branching fractions, $B(\tau_{\pm} \rightarrow \mu\pm\gamma) \leq 4.2 \times 10^{-8}$ and $B(\tau_{\pm} \rightarrow e\pm\gamma) \leq 5.6 \times 10^{-8}$, are set at 90% confidence level.
Description:	Only IISERM authors are available in the record.
URI:	https://doi.org/10.1007/JHEP10(2021)019 (https://doi.org/10.1007/JHEP10(2021)019) http://hdl.handle.net/123456789/4635 (http://hdl.handle.net/123456789/4635)
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