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Title:	Search for B^0 decays to invisible final states ($+ \gamma$) at Belle
Authors:	Bhardwaj, V. (/jspui/browse?type=author&value=Bhardwaj%2C+V.)
Keywords:	Invisible decays Particle dark matter Supersymmetric models
Issue Date:	2020
Publisher:	American Physical Society
Citation:	Physical Review D, 102(1)
Abstract:	We report searches for $B^0 \rightarrow \text{invisible}$ and $B^0 \rightarrow \text{invisible} + \gamma$ decays, where the energy of the photon is required to be larger than 0.5 GeV. These results are obtained from a 711 fb ⁻¹ data sample that contains $772 \times 10^6 B\bar{B}$ pairs and was collected near the $\Upsilon(4S)$ resonance with the Belle detector at the KEKB e ⁺ e ⁻ collider. We observe no significant signal for either decay and set upper limits on their branching fractions at 90% confidence level of $B(B^0 \rightarrow \text{invisible}) < 7.8 \times 10^{-5}$ and $B(B^0 \rightarrow \text{invisible} + \gamma) < 1.6 \times 10^{-5}$.
Description:	Only IISERM authors are available in the record.
URI:	https://journals.aps.org/prd/abstract/10.1103/PhysRevD.102.012003 (https://journals.aps.org/prd/abstract/10.1103/PhysRevD.102.012003) http://hdl.handle.net/123456789/3275 (http://hdl.handle.net/123456789/3275)
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