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Title:	Search for B 0 meson decays into Λ and missing energy with a hadronic tagging method at Belle
Authors:	Bhardwaj, Vishal (/jspui/browse?type=author&value=Bhardwaj%2C+Vishal)
Keywords:	B 0 meson decays into Λ hadronic tagging
Issue Date:	2022
Publisher:	American Physical Society
Citation:	Physical Review D, 105(5), L051101.
Abstract:	We present a search for the decays of B 0 mesons into a final state containing a Λ baryon and missing energy. These results are obtained from a 711 fb − 1 data sample that contains 772 × 10 6 B¯ B pairs and was collected near the Y (4 S) resonance with the Belle detector at the KEKB asymmetric-energy e + e − collider. We use events in which one B meson is fully reconstructed in a hadronic decay mode and require the remainder of the event to consist of only a single Λ . No evidence for these decays is found, and we set 90% confidence level upper limits on the branching fractions in the range 2.1 – 3.8 × 10 − 5 . This measurement provides the world's most restrictive limits, with implications for baryogenesis and dark matter production.
Description:	Only IISER Mohali authors are available in the record.
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