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Prospects for long-lived particle searches at Belle II

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The Belle II experiment at the asymmetric e^+e^- collider, SuperKEKB, is a substantial upgrade of the Belle/KEKB experiment. Belle II aims to record 50 ab^{-1} of data over the course of the project. During the first physics runs in 2018-2020, around 100 fb^{-1} were collected. Large improvements in the instantaneous luminosity are expected in the coming years. The Belle II detector benefits from a larger tracking detector and improved tracking and vertexing algorithms with respect to Belle, allowing for improvements in the reconstruction of vertices that are displaced from the interaction point. This talk will review the prospects for long-lived particle searches at Belle II. The experiment can be used to search for long lived particles produced directly in the interaction, or in meson and lepton decays.

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First author

Jim Libby

Email

libby@iitm.ac.in

Collaboration / Activity

Belle II

Primary author: LIBBY, James Frederick (BELLE (BELLE II Experiment))**Presenter:** FERBER, Torben (BELLE (BELLE II Experiment))**Session Classification:** T10: Searches for New Physics**Track Classification:** Searches for New Physics