

Phenomenology 2021 Symposium



Contribution ID: 1257

Type: BSM

GAZELLE - a long-lived particle detector for Belle II?

Monday 24 May 2021 15:45 (15 minutes)

Many BSM models predict long-lived particles (LLPs) which are generally difficult to detect at existing colliders. We have explored the potential of a future far detector at Belle II, named GAZELLE. For that, we have investigated three models that predict LLPs with different production mechanisms. In this talk, I will compare the projections of finding these LLPs at Belle II or GAZELLE. Due to Belle II's excellent sensitivity to LLPs, we find little extra gain in building a far detector like GAZELLE.

Summary

Primary authors: FILIMONOVA, Anastasiia (Nikhef); GARCIA-CELY, Camilo (DESY); Prof. HEARTY, Christopher (University of British Columbia (CA)); ZUPAN, Jure (University of Cincinnati); SCHMIDT-HOBERG, Kai Ronald (Deutsches Elektronen-Synchrotron (DE)); TRABELSI, Karim (LAL); TAMMARO, Michele; SCHÄFER, Ruth (Universität Heidelberg); DREYER, Sascha Simon (Deutsches Elektronen-Synchrotron DESY); LONGO, Savino (DESY); WESTHOFF, Susanne (Heidelberg University); FERBER, Torben (DESY)

Presenter: SCHÄFER, Ruth (Universität Heidelberg)

Session Classification: BSM I