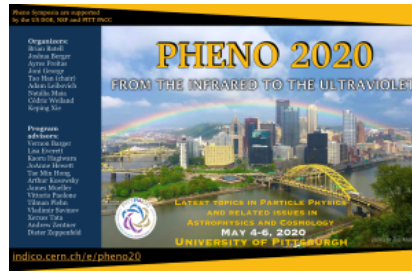


# Phenomenology 2020 Symposium



Contribution ID: 917

Type: **Parallel Talk**

## Long-lived particle search @ LHC

Monday 4 May 2020 17:30 (15 minutes)

Long-lived particle is well motivated for the new physics search both for collider phenomenology and dark sector. We make use of new variables related to position to search for long-lived, basing on current CMS detector and the Phase-2 Upgrade of the CMS endcap calorimeter which is a high granularity silicon-based calorimeter (HGCALE). We study the long-lived particle signal induced by long-lived sterile neutrino and long-lived Higgs portal particle. The position related variables have been developed to suppress QCD and fake track backgrounds. The final results depends on trigger performance and are generally promising.

### Summary

**Primary authors:** LIU, Zhen (Fermilab); WANG, Xiaoping; LIU, Jia (University of Chicago); WANG, LianTao (University of Chicago)

**Presenter:** WANG, Xiaoping

**Session Classification:** BSM II

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