

Phenomenology 2020 Symposium



Contribution ID: 1027

Type: **Parallel Talk**

”Dark Scalars and Heavy Neutral Leptons at the Fermilab SeaQuest Experiment”

Monday 4 May 2020 18:00 (15 minutes)

We analyze the sensitivity of the Fermilab SeaQuest experiment to GeV-scale dark scalars and heavy neutral leptons. We consider a variety of production mechanisms, including meson decays, proton bremsstrahlung, and perturbative QCD processes, and study a variety of displaced final states signatures for these light exotic new particles.

We show that SeaQuest has the potential to probe significant new regions of parameter space in these scenarios on a time scale that is competitive with or better than other planned experiments.

Summary

Authors: Prof. BATELL, Brian (University of Pittsburgh); Dr EVANS, Jared (University of Cincinnati); Mr RAI, Mudit (University of Pittsburgh); Prof. GORI, Stefania (University of California Santa Cruz)

Presenter: Mr RAI, Mudit (University of Pittsburgh)

Session Classification: DM II

Track Classification: Dark Matter