

ΤΜΗΜΑ ΦΥΣΙΚΗΣ

Το **Τμήμα Φυσικής** του Πανεπιστημίου Κύπρου
σας προσκαλεί την

1^η Ιουνίου 2022, ώρα 16:30
στην αίθουσα B228, στο κτίριο 13 στην Πανεπιστημιούπολη

στην παρουσίαση της Διατριβής Master του φοιτητή Λεωνίδα Παϊζάνου

με τίτλο

***“Searches for Beyond the Standard Model Signatures with the CMS
Detector at LHC”***

The Standard Model of particle physics is one of the most outstanding achievements of modern physics. It describes the elementary particles that form our universe and the interactions between them, providing at the same time a successful explanation of the current experimental data. Unfortunately, it fails to answer some crucial questions leading us to the need for new physics. This thesis includes the presentation of two analyses whose primary goal is to search for BSM signatures proving the existence of new physics. The first has to do with the production of a charged Higgs boson with mass heavier than the top quark through its decays to a top and a bottom quark in the lepton (e or μ) plus jets final state. The main purpose of the second analysis is the search for heavy seesaw fermions decaying to W,Z or Higgs Bosons in muons plus "fat" Jets final state.

Zoom Link: <https://cern.zoom.us/j/65521182252?pwd=ek52WnFpSmxVaUVSdzNWYTl0NkplUT09>