



Πανεπιστήμιο
Κύπρου

ΤΜΗΜΑ ΦΥΣΙΚΗΣ

Το Τμήμα Φυσικής του Πανεπιστημίου Κύπρου
σας προσκαλεί την

Τετάρτη, 23 Μαρτίου 2022, ώρα 10:30
στην αίθουσα B228, στο κτίριο 13 στην Πανεπιστημιούπολη

στην παρουσίαση της Διδακτορικής Διατριβής της Μαρίνας Κολόσωβα

“Search for charged Higgs bosons decaying into a top and a bottom quark with the CMS detector in pp collisions at $\sqrt{s}=13$ TeV with the 2016 and 2017 LHC data”

A search for charged Higgs bosons decaying into a top and bottom quark-antiquark pair in the all-jet final state is presented. The search is based on LHC proton-proton collision data recorded with the CMS detector during 2016 and 2017, at a center-of-mass energy of 13 TeV, corresponding to integrated luminosities of 35.9 fb^{-1} and 40.5 fb^{-1} , respectively. The data analysis is performed with the use of machine learning techniques for top quark identification and signal extraction, event categorization, and data-driven background measurement. No significant excess is observed with respect to the expected background from Standard Model processes and upper limits at 95% confidence level are set on the charged Higgs boson production cross-section and branching fraction of its subsequent decay into top and bottom quarks. The 2016 results are interpreted in the parameter space of different Minimal Supersymmetric Standard Model scenarios.

Η παρουσίαση θα είναι ανοικτή στο κοινό μέσω τηλεδιάσκεψης:

<https://ucy.zoom.us/j/93893044989?pwd=NHZWQXB3a1B5ZWZ0aFlOT3YyNFROZz09>

Meeting ID: 938 9304 4989 Password.: 892837

Για περισσότερες πληροφορίες παρακαλώ επικοινωνείτε: Τμήμα Φυσικής, τηλέφωνο: 22892820