

THEORETICAL PHYSICS SEMINAR

Title: Top FCNC decays in the aligned two-Higgs doublet model

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Date/Time/Venue: 29th March (Tuesday)/2:30 PM/ Room No. 469

ABSTRACT

We compute the flavour-changing top decays $t \rightarrow ch$ and $t \rightarrow cV$ ($V = g, Z$) within the framework of the aligned two-Higgs-doublet models. By exploiting constraints from flavour physics and the measured Higgs properties, we investigate the parameter space of the model and its impact on the associated branching ratios. It is observed that the Higgs signal strength in the di-photon channel imposes important restrictions on the $t \rightarrow ch$ decay rate when the charged scalar of the model is light. We conclude that the rates of these flavour-changing top decays are beyond the expected sensitivity of the future high-luminosity phase of the LHC.

All are welcome to attend