

HECA Seminar

(High Energy, Cosmology and Astro-particle physics)

[HECA web-page](#)

Tuesday 03.03.2020, h 11:15

Pasteura 5, room B2.38 (Faculty of Physics)

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The status of b to s anomalies before Moriond 2020

Abstract

Flavour Changing Neutral Currents (FCNC) are an excellent probe for the search of New Physics. Therefore, LHCb has put a particular care in the study of B decays mediated by FCNC. Tensions between present data and Standard Model predictions have been found in some of these channels, hinting at a possible violation of Lepton Flavour Universality. I will review the status of these tensions after the results presented last year at Moriond 2019, assessing with particular care the theoretical cleanness of the observables displaying such tensions. Then, I'll discuss the possible explanations for such a pattern of anomalies both within and beyond the Standard Model, employing a model independent EFT framework. Finally, I'll review a possible loop model capable to address such anomalies.

Best regards,

Andrzej Hryczuk
Kamila Kowalska
Kazuki Sakurai
Enrico Maria Sessolo
Krzysztof Turzyński