

Środowe seminarium w Instytucie Fizyki

 $\mathbf{April} \,\, \mathbf{6}^{th} - \mathbf{12:00}$

Prof. Raffaele-Tito D'Agnolo

Institut de Physique Théorique, Université Paris Saclay, CEA

"Cosmological Selection of the Weak Scale"

I will discuss a new joint solution to the electroweak hierarchy problem and the strong-CP problem [2106.04591], with correlated signals in future hadronic EDM experiments and searches for dark matter. In the second half of the talk, using the previous mechanism as an example, I will identify the general features of cosmological selection of the weak scale. In particular I will introduce the concept of "weak scale trigger" [2012.04652] and its phenomenology. Triggers are common to the vast majority of mechanisms that explain the weak scale cosmologically. They give us the opportunity to test this general idea experimentally.