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Theorie-Palaver

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Lorentz room (Staudingerweg 7, 5th floor)

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Probing Relaxion (Scalars) at the Precision Frontier

The relaxion mechanism, which was proposed recently, can address the hierarchy problem without resorting to new physics at the TeV scale. Our prior efforts on this subject have produced several new results, which have interesting phenomenological implications. We have shown that the relaxion can account for the observed dark matter relic density and can be probed in various different frontiers. The relaxion has scalar coupling to the SM and as a result of the oscillating DM background, the fundamental constants of nature are oscillating in time as well. In this talk, I will discuss how the relaxion could be a viable DM candidate and then will discuss how to search for scalar DM (relaxion) using precision spectroscopy.

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