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Electroweak Vacuum Stability after LHC8

Thursday, 18 December 2014 15:00 (1 hour)

The discovery of the Higgs boson by the LHC in 2012, and especially the determination of its mass around 125 GeV, together with the absence of any trace of new physics, make it conceivable that we live in a metastable electroweak vacuum. This vacuum turns out to be extremely long-lived as that particular mass value means we live quite close to the stability boundary. I will describe the state-of-the-art calculation that leads to this intriguing conclusion and elaborate on possible implications as well as a simple cure of this instability of the Higgs potential.

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