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Particle Physics at LPTHE

Vendredi 12 Octobre 2018, 14 :00
LPTHE, Library
Domaines : hep-ph

Titre : *Resummation for BSM*

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Résumé : *The existence of physics beyond the Standard Model (BSM) is well motivated from both an experimental and theoretical point of view. However, data from the 7/8 TeV LHC (Run I) have ruled out new, electroweak-scale states that couple strongly to the Standard Model. This suggests that new physics, if it is indeed accessible at the LHC, is either light and very weakly coupled or very heavy with sizable couplings. Interestingly, such mass scales correspond to regions of phase space for BSM collider processes where QCD corrections can be large, making necessary their resummation. In this seminar, examples of how QCD resummation can quantitatively and qualitatively change BSM phenomenology at the 13 TeV LHC (and prospective 100 TeV VLHC) are presented.*