DESY

Particle and Astroparticle Physics Colloquium



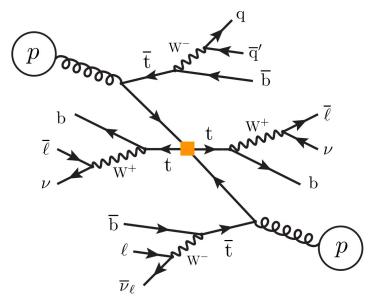
Top quarks, effective interactions, and future LHC measurements.

Tuesday, 7 February, 2023 Auditorium & Webcast 16:00 h

Robert Schöfbeck (HEPHY Vienna)

Effective field theories (EFTs) have recently advanced to become an essential language for formulating the LHC's legacy. Building on the standard model's (SM) particle content and symmetries, we can use EFTs to extract maximal information from various measurements and begin to address big questions on the smallest distance scales. A large number of parameters and the interplay of effects across various measurement channels favor machine-learningassisted measurements that fully exploit the field's highly developed predictive models, such as quantum field theories. I will explain how these topics work together in practice, for example, by showing how and what we learn from EFTs about hypothetical forces among heavy quarks and highlight future directions currently explored.





This is a HYBRID colloquium

Meeting ID: 996 1652 8733 Meeting Password: 733220



