

PAUL SCHERRER INSTITUT



Particle Theory Seminar

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“Weak effects in heavy quark production and di-jet
production at Hadron Colliders”

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Abstract:

With the start of the LHC we will have two Hadron Colliders at our disposal where the Standard Model can be tested at high energy. The success of this challenging endeavor relies heavily on our ability to make precise theoretical predictions for the Standard Model and its extensions. Due to possible large Sudakov logarithms, in addition to QCD also weak corrections become important in the high energy regime. In my talk I will discuss the weak $O(\alpha_s^2\alpha)$ corrections to top-quark pair production, and first results on bottom-quark jet production and di-jet production.