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Measuring the top-quark running mass

Wednesday, 6 May 2015 15:00 (1 hour)

The top-quark mass is a fundamental parameter of the Standard Model. We will motivate, why precision determinations of the top-quark mass are important in the upcoming high-energy run of the LHC and discuss the prerequisites in theory for the extraction of a well-defined mass parameter in a given renormalization scheme.
We show that the top-quark's running mass in the MSbar scheme can be extracted with good precision at next-to-next-to-leading order in QCD and discuss a number of suitable observables.

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