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QCD at NNLO using antenna subtraction

Thursday 11 January 2018 10:00 (20 minutes)

Progress made by ATLAS and CMS in recent years has dramatically reduced the experimental uncertainty associated with many important measurements of hadronic processes. Any detection of BSM physics at the LHC will require theoretical SM predictions matching this precision, and thus the inclusion of NNLO QCD corrections.

I will outline the challenges of such calculations, summarise the universal infrared structure of QCD, and introduce the antenna subtraction method, which exploits this structure to regulate the IR divergences of phase-space integrands. I will then walk through the assembly of an NNLO calculation for an example process.

What would be the preferred length of your talk?

20 minutes + questions

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