



Tuesday, 12 November 2013 at 16:00 c.t.
Seminar room 0815, 8th floor, physics highrise

NNLO QCD corrections to gauge-boson pair production: first results on $Z\gamma$

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Abstract

I report on the first complete and fully differential computation of the production of $Z\gamma$ pairs at next-to-next-to-leading order in QCD perturbation theory. The q_T -subtraction method, which is applicable to achieve NNLO QCD accuracy in the production of any colourless final-state, is introduced, and the technical realization of the calculation in a Monte Carlo integrator is discussed. Finally, I present some first numerical results on inclusive cross sections and some selected distributions for the production of $Z\gamma$ pairs.