Contribution ID: **10** Type: **Parallel session talk**

NLO QCD predictions for polarised ZW^+ production with semileptonic decay

Tuesday 22 August 2023 18:00 (20 minutes)

Duration: 15'+5'
With the help of the pole approximation, observables with polarised intermediate resonances can be calculated. Gauge-boson-pair production represents a particularly interesting class of processes to study polarisation. The definition of polarised signals at amplitudue level has enabled successful phenomenological studies of leptonically decaying vector bosons. The natural step forward from this is the investigation of bosons decaying into hadrons. In this talk I discuss the NLO QCD predictions for the production of a polarised ZW^+ pair, where the W^+ boson decays hadronically and the Z boson leptonically. Of particular interest are observables that are well suited for the discrimination amongst different polarisation states of both weak bosons. In addition I analyse the significant impact of NLO QCD corrections on differential distributions.

Collaboration / Activity

Theory

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