

Complex Triple Gauge Boson Couplings

Generalized effective lagrangians is the usual method for describing possible deviations from the Standard Model in Di-boson studies. Traditionally the strength of the additional terms in the lagrangian are parametrized by Triple Gauge Boson Couplings (TGCs) assumed to be real. This assumption is not required and I will present a study of complex triple gauge boson couplings using a modified effective TGC lagrangian. Focus will be on W-pair production in pp collisions and the distributions of the purely leptonic (l₁l₂l₃) decay channel will be evaluated. Simulations using the modified lagrangian are compared to SHERPA (an event generator which includes anomalous TGCs) Monte Carlo simulations to understand how the distributions of the decay particles are affected by including the imaginary part of the couplings.

Author: RASMUSSEN, Christine Overgaard (NBI)

Presenter: RASMUSSEN, Christine Overgaard (NBI)