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First WWdiff results from full simulation studies of WW and single-W production

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Differential measurements of WW production have a long history in the (linear) e^+e^- -collider community. In particular, to determine the (anomalous) triple gauge couplings (aTGC) and the longitudinal beam polarization. However, if done in full simulation at all, these studies focused on higher center-of-mass energies of 500-1000 GeV. So far only extrapolations of these results to the “typical” Higgs factory energies of 240-250 GeV were given. Additionally, the focus was mostly on “pure” WW production, while the importance of single-W production has become more apparent only recently.

In this talk, we present the first results of a full-simulation study at 240-250 GeV, with a focus on the $e\nu q\bar{q}$ final state, including single-W production. We perform the study in a detector-agnostic way and compare results for the CLD@FCC-ee and ILD@ILC detector models using the Key4hep software stack.

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