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## Automation of NLO processes and decays and POWHEG matching in WHIZARD

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We give a status report on the automation of next-to-leading order processes within the Monte Carlo event generator WHIZARD, using GoSam and OpenLoops as provider for one-loop matrix elements. To deal with divergences, WHIZARD uses automated FKS subtraction, and the phase space for singular regions is generated automatically. NLO examples for both scattering and decay processes with a focus on  $e+e-$  processes are shown. Also, first NLO-studies of observables for collisions of polarized leptons beams, e.g. at the ILC, will be presented. Furthermore, the automatic matching of the fixed-order NLO amplitudes with emissions from the parton shower within the Powheg formalism inside WHIZARD will be discussed. We also present results for top pairs at threshold in lepton collisions, including matching between a resummed threshold calculation and fixed-order NLO. This allows the investigation of more exclusive differential observables.

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