

Luminosity measurement at 500 GeV and 1 TeV ILC

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We present the method of luminosity measurement at the future linear collider (ILC) that corrects for the impact of the dominant sources of systematic uncertainty originating from the beam-induced effects and the background from physics processes. Some of these systematic corrections can be done in a simulation independent manner. With the introduced corrective methods we show that the overall systematic uncertainty of the luminosity measured in the peak region above 80% of the nominal center-of-mass energy meets the physics requirements to be at the permille level at all ILC energies.

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