Model Coupling Tables and Other Issues

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Detector Systematic Errors

	Baseline	LumiUP
luminosity	0.1%	0.05%
polarisation	0.1%	0.05%
b-tag efficiency *	0.3%	0.15%

* $H \to b\bar{b}$ only

Model Dependent Couplings

	ILC(250)	ILC(500)	ILC(1000)	ILC(LumUp)
$\sqrt{s}$ (GeV)	250	250+500	250+500+1000	250+500+1000
L (fb^{-1})	250	250+500	250+500+1000	1150+1600+2500
$\gamma\gamma$	17 %	8.3 %	3.8 %	2.3 %
gg	6.1 %	2.0 %	1.1 %	0.7 %
WW	4.7 %	0.4 %	0.2 %	0.1 %
ZZ	0.7 %	0.5 %	0.4 %	0.2 %
$t\bar{t}$	6.3 %	2.5 %	1.3 %	0.8 %
$b\bar{b}$	4.7 %	0.9 %	0.5 %	0.3 %
$\tau^+\tau^-$	5.2 %	1.9 %	1.3 %	0.7 %
$\Gamma_T(h)$	8.9 %	1.5 %	0.8 %	0.5 %

Numbers Presented at Snowmass - No Detector Sys Err

	ILC(250)	ILC(500)	ILC(1000)	ILC(LumUp)
$\sqrt{s}$ (GeV)	250	250+500	250+500+1000	250+500+1000
L (fb^{-1})	250	250+500	250+500+1000	1150+1600+2500
$\gamma\gamma$	17 %	8.3 %	3.8 %	2.3 %
gg	6.1 %	2.0 %	1.1 %	0.7 %
WW	4.7 %	0.4 %	0.3 %	0.2 %
ZZ	0.7 %	0.5 %	0.5 %	0.3 %
$t\bar{t}$	6.4 %	2.5 %	1.3 %	0.9 %
$b\bar{b}$	4.7 %	1.0 %	0.6 %	0.4 %
$\tau^+\tau^-$	5.2 %	1.9 %	1.3 %	0.7 %
$\Gamma_T(h)$	9.0 %	1.7 %	1.1 %	0.8 %

Proposed Final Numbers - With Detector Sys Err

Luminosity Assumption for Most of the Paper is Still :

Table 2.3. Energy and luminosity scenarios assumed in this paper.

Nickname	Ecm(1) (GeV)	Lumi(1) (fb^{-1})	+	Ecm(2) (GeV)	Lumi(2) (fb^{-1})	+	Ecm(3) (GeV)	Lumi(3) (fb^{-1})	Runtime (yr)	Wallplug E (MW-yr)
ILC(250)	250	250							1.1	130
ILC(500)	250	250		500	500				2.0	270
ILC(1000)	250	250		500	500		1000	1000	2.9	540
ILC(LumUp)	250	1150		500	1600		1000	2500	5.8	1220

In the Summary chapter we present results for upgraded lumi without upgraded energy:

Table 10.3. Energy and luminosities assuming no running at 1 TeV center of mass energy.

Nickname	Ecm(1) (GeV)	Lumi(1) (fb^{-1})	+	Ecm(2) (GeV)	Lumi(2) (fb^{-1})	Runtime (yr)	Wallplug E (MW-yr)
ILC(250)	250	250				1.1	130
ILC(500)	250	250		500	500	2.0	270
ILC500(LumUp)	250	1150		500	1600	3.9	660

Text has been added to help explain and justify the Lumi assumptions:

It is of interest to consider the evolution of ILC Higgs physics results over time given the ILC machine parameters defined in Table 2.1 and Table 2.2. Taking eighteen years as a reasonable ILC lifetime, and using the concept of a Snowmass Year where an accelerator is assumed to run at its nominal luminosity for one-third of the time, we assume that the ILC runs for a total of 18×10^7 seconds at nominal luminosity during its life. Without optimization we make the simple assumption that we run for 3×10^7 s at the baseline luminosity at each of the center of mass energies 250, 500, and 1000 GeV, in that order. Following those runs we go back and run for 3×10^7 s at the upgraded luminosity at each of the three center of mass energies.

To avoid a proliferation of table entries, most results are only presented for the four different combinations of energy and luminosity listed in Table 2.3. Each scenario corresponds to the accumulated luminosity at different points in time. In the summary chapter, however, we present results for some alternative scenarios where, for example, runs at center of mass energies of 250 and 500 GeV take place at the upgraded luminosity before any runs at 1000 GeV.

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