

| Facility | LHC | HL-LHC | ILC | ILC LumiUP | CLIC | TLEP (4 IPs) |
|---|------------|-----------|------------------|----------------|-----------------|--------------|
| Energy (GeV) | 14,000 | 14,000 | 250+500+1000 | 250+500+1000 | 350+1400+3000 | 240+350 |
| $\int \mathcal{L} dt$ (fb ^{−1}) | 300/expt | 3000/expt | 250+500+1000 | 1150+1600+2500 | 500+1500+2000 | 10000+1400 |
| N_H (×10 ⁶) | 17 | 170 | 0.37 | 1.05 | 2.2 | 3.2 |
| Measurement precision | | | | | | |
| m_H (MeV) | 100 | 50 | 35 | 35 | 33 | 7 |
| $\Delta\Gamma_H$ | — | — | 4.8/1.6/1.2% | tbd | ? | 0.5% |
| BR _{inv} | < 14 – 18% | < 7 – 11% | <0.44/0.30/0.26% | tbd | tbd | <0.1% |
| $\Delta g_{H\gamma\gamma}$ | 5 – 7% | 2 – 5% | 4.9/4.3/3.3% | tbd | −/5.5/<5.5% | 1.5% |
| $\Delta g_{HZ\gamma}$ | 41 – 41% | 10 – 12% | ? | ? | tbd | tbd |
| Δg_{Hgg} | 6 – 8% | 3 – 5% | 4.0/2.0/1.4% | tbd | 3.6/0.79/0.56% | 0.79% |
| Δg_{HWW} | 4 – 6% | 2 – 5% | 1.9/0.24/0.17% | tbd | 1.5/0.15/0.11% | 0.10% |
| Δg_{HZZ} | 4 – 6% | 2 – 4% | 0.44/0.30/0.27% | tbd | 0.49/0.33/0.24% | 0.05% |
| $\Delta g_{H\mu\mu}$ | update | update | −/−/16% | tbd | −/10/5.2% | 6.2% |
| $\Delta g_{H\tau\tau}$ | 6 – 8% | 2 – 5% | 3.3/1.9/1.4% | tbd | 3.5/1.4/<1.3% | 0.51% |
| Δg_{Hcc} | — | — | 4.7/2.5/2.1% | tbd | 3.1/1.1/0.75% | 0.69% |
| Δg_{Hbb} | 10 – 13% | 4 – 7% | 2.7/0.94/0.69% | tbd | 1.7/0.32/0.19% | 0.39% |
| Δg_{Htt} | 14 – 15% | 7 – 10% | 14/9.3/3.7% | tbd | −/4.0/<4.0% | 13% |
| Δg_{HHH} | — | 50% | 26% | 16% | 16/10% | — |