

Summary of relative systematic uncertainties

Common experimental uncertainties	2022	2023	2024
Luminosity uncorrelated	1.4%	1.3%	1.61%
Lepton ID/reco efficiencies	8.8–11.6% (4e)	17.7–22.2% (4e)	9.8–11.3% (4e)
	0.9–2.3% (4 μ)	0.6–1.8% (4 μ)	0.4–1.7% (4 μ)
	5.9–7.2% (2e2 μ /ele)	11.6–14.8% (2e2 μ /ele)	6.4–6.7% (2e2 μ /ele)
	0.8–1.7% (2e2 μ /mu)	0.5–1.3% (2e2 μ /mu)	0.3–1.2% (2e2 μ /mu)
Jets energy scale	0.1%– 18.5%	0.1% – 23.7%	0.1% – 14.1%
Background related uncertainties	2022	2023	2024
Reducible background (Z+X)	25–45%	25–55%	25–35%
Signal related uncertainties	2022	2023	2024
Lepton energy scale	0.15% (μ) – 0.3% (e)	0.15% (μ) – 0.2% (e)	0.05% (μ) – 0.25% (e)
Lepton energy resolution	5% (μ) – 12% (e)	5% (μ) – 10% (e)	2.5% (μ) – 7% (e)