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# Optimal Observables

# Chosen observables for parton-level WZ-production

Table of selected observables. Description of range definition.

# Fitting EFT to SM for parton-level WZ-production

Confident that we have the reweighting tools to construct the observable plots for any defined set of EFT model parameters, we will now measure the fit characteristics of reweighting EFT data to SM data. Specifically, we measure how well reweighted EFT data fits the SM data for each selected observable, using a fit algorithm to determine the EFT model parameters that fit best. This is done using the same parton-level WZ-production pseudo-data generated by Sherpa used previously.

The SM and EFT data samples both have 1M events. Their total cross-sections are 18.554 ± 0.016 pb for SM and 42.805 ± 0.038 pb for EFT. The data samples are scaled to a luminosity of 1 fb–1, and Asimov bin errors are used as discussed in 4.2.1.

Log-likelihood minimization is used to fit to event counted observables, and -minimization is used to fit to mean-observables. The results are shown in Table XXX.

# Fitting EFT to SM for simulated measurement of WZ-production

# Conclusion

# Bibliography