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**Ideogram-based Gaussian Estimator for the Model Uncertainty in the Extraction of $Q_w(p)$ from PVES Data**[1] GREGORY SMITH, Jefferson Lab, QWEAK COLLABORATION — As the $Q_{weak}$ collaboration gets closer to unblinding our final result, a method to account for the model uncertainty in the extraction of $Q_w(p)$ from a fit to existing parity-violating electron scattering data has been developed. Choices made in selecting the database used in the fit, the strange dipole mass, the functional form of $G_{E,M}^s$, axial constraints, charge-symmetry breaking effects, and in the electromagnetic form factors all contribute to this model uncertainty. An ideogram-inspired Gaussian estimator of this model uncertainty is derived from a fit to a sum of Gaussians, each characterized by the central value and uncertainty of the weak charge obtained from fits using each choice. The width of the resulting summed Gaussian is used to extract the model uncertainty in quadrature from the statistical and systematic errors assumed in the baseline analysis. Finally, this result is compared to the "stand-alone" weak charge determined from the single datum representing the asymmetry expected from the (as yet unblinded) Qweak experiment, using calculated electromagnetic, strange, and axial contributions.

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