

Metric	Good at	Bad at
$R^2$ value: Correlation coefficient of the linear regression between the measured (x) and predicted (y) value.	Assessing precision and random uncertainty. Low precision (lots of random uncertainty) = low $R^2$ value.	Assessing accuracy and systematic uncertainty.
Gradient, and Intercept of the linear regression	Assessing systematic uncertainty (will generate a gradient different from 1, and an intercept different from zero).	Assessing precision/random uncertainty (as averages all measurements).
Root mean square error (RMSE) aka. SEE $RMSE = \sqrt{\frac{1}{N} \sum_{i=1}^N (x_i - y_i)^2}$	Describes how concentrated the data is around the linear regression.	Struggles to distinguish between low precision and accurate vs. high precision with a systematic offset.
Mean Absolute Error (MAE) $MAE = \frac{1}{N} \sum_{i=1}^N (x_i - y_i)$	Like the RMSE but with no squared term. Unlike the RMSE can identifying systematic offsets	Doesn't identify random error