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| **Metric** | **Good at** | **Bad at** |
| R2 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 R2 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 | 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) | Like the RMSE but with no squared term. Unlike the RMSE can identifying systematic offsets | Doesn’t identify random error |