MSE:

In statistics, the mean squared error or mean squared deviation of an estimator measures the average of the squares of the errors—that is, the average squared difference between the estimated values and the actual value. MSE is a risk function, corresponding to the expected value of the squared error loss.

RMSE

**Root mean squared error** (**RMSE**) is the square **root** of the **mean** of the square of all of the error. ... **RMSE** is a good measure of accuracy, but only to compare prediction errors of different models or model configurations for a particular variable and not between variables, as it is scale-dependent.

NRMSD

Normalizing the RMSD facilitates the comparison between datasets or models with different scales. Though there is no consistent means of normalization in the literature, common choices are the mean or the range (defined as the maximum value minus the minimum value) of the measured data

MAPE

The **mean absolute percentage error** (**MAPE**), also known as **mean absolute percentage deviation** (**MAPD**), is a measure of prediction accuracy of a forecasting method in [statistics](https://en.wikipedia.org/wiki/Statistics), for example in [trend estimation](https://en.wikipedia.org/wiki/Trend_estimation), also used as a [loss function](https://en.wikipedia.org/wiki/Loss_function) for regression problems in [machine learning](https://en.wikipedia.org/wiki/Machine_learning). It usually expresses the accuracy as a ratio defined by the formula:



where *At* is the actual value and *Ft* is the forecast value. The MAPE is also sometimes reported as a percentage, which is the above equation multiplied by 100. The difference between *At* and *Ft* is divided by the actual value *At* again. The absolute value in this calculation is summed for every forecasted point in time and divided by the number of fitted points *n*. Multiplying by 100% makes it a percentage error.

R-value:

Correlation Coefficient. The main result of a correlation is called the correlation coefficient (or "**r**"). It ranges from -1.0 to +1.0. The closer **r** is to +1 or -1, the more closely the two variables are related. If **r** is close to 0, it means there is no relationship between the variables.

Correlation coefficient **values** below 0.3 are considered to be weak; 0.3-0.7 are moderate; >0.7 are strong. You also have to compute the **statistical** significance of the correlation

The **relationship** between two variables is generally **considered strong** when their **r value** is larger than 0.7. The **correlation r** measures the strength of the linear **relationship** between two quantitative variables. Pearson **r**: **r** is always a number between -1 and 1.