

# Goodness of fit

@wikipedia

The basic set of [Model Validation](#) metrics against certain dataset (could be the [Training dataset](#) or [Validation dataset](#)).

There is no complete set of numbers to define the [Goodness of fit](#) and different studies may use different sets of [Goodness of fit](#) metrics.

The most widely used set in engineering practice is summarized in the table below:

<a href="#">Root Mean Square Deviation (RMSD)</a>	<b>RMSD</b>
<a href="#">Average Absolute Relative Error (AARE)</a>	<b>AARE</b>
<a href="#">Maximum Absolute Relative Error (MAXARE)</a>	<b>MAXARE</b>
<a href="#">Coefficient of determination (R<sup>2</sup>)</a>	<b>R<sup>2</sup></b>
<a href="#">Pearson correlation coefficient (<math>\rho</math>)</a>	<b><math>\rho</math></b>
<a href="#">Correlation skewness</a>	<b><math>S_3</math></b>
<a href="#">Validation Cross-Plot</a>	

## See also

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[Human](#) / [Science](#) / [Formal Science](#) / [System Science](#) / [System](#) / [Model](#) / [Model Validation](#)

[ [Mathematics](#) / [Statistics](#) / [Statistical Metric](#) ]

[ [Mean Square Deviation \(MSD\)](#) = [Mean Square Error \(MSE\)](#) ]

[ [Root Mean Square Deviation \(RMSD\)](#) = [Root Mean Square Error \(RMSE\)](#) ]

[ [Average Relative Error \(ARE\)](#) = [Average Percentage Error \(APE\)](#) ]

[ [Average Absolute Relative Error \(AARE\)](#) = [Average Absolute Percentage Error \(AAPE\)](#) ]

[ [Maximum Relative Error \(MAXRE\)](#) = [Maximum Percentage Error \(MAXPE\)](#) ]

[ [Maximum Absolute Relative Error \(MAXARE\)](#) = [Maximum Absolute Percentage Error \(MAXAPE\)](#) ]

[ [Coefficient of determination \(R<sup>2</sup>\)](#) ][ [Pearson correlation coefficient \( \$\rho\$ \)](#) ][ [Correlation skewness](#) ]

[ [Validation Cross-Plot](#) ]