Whole Dataset Evaluation:

code	name	rule	native units	notes
`amae`	Average MAE	$\mathrm{MAE}_{\mathrm{avg}} = \frac{1}{PN}\sum_{p=1}^{P}\sum_{i=1}^{N}\lvert d_i^p - y_i^p \rvert$	yes	Average Mean Absolute Error over all outputs and all patterns in native units.
`aed`	Average ED	$\mathrm{ED}_{\mathrm{avg}} = \frac{1}{P}\sum_{p=1}^{P}\sqrt{\sum_{i=1}^{N}(d_i^p - y_i^p)^2}$	yes	Average Euclidean Distance over all patterns in native units.
`amse`	Average MSE	$\mathrm{MSE}_{\mathrm{avg}} = \frac{1}{PN}\sum_{p=1}^{P}\sum_{i=1}^{N}(d_i^p - y_i^p)^2$	no	
`armse`	Average RMSE	$\mathrm{RMSE}_{\mathrm{avg}} = \frac{1}{P}\sum_{p=1}^{P}\sqrt{\frac{1}{N}\sum_{i=1}^{N}(d_i^p - y_i^p)^2}$	no	
`mmae`	Median MAE	$\mathrm{MAE}_{\mathrm{med}} = \operatorname*{Md}_{p=1}^{P}\left(\frac{1}{N}\sum_{i=1}^{N}\lvert d_i^p - y_i^p \rvert\right)$	yes	MAE error of the average pattern in native units.
`t10mae`	Top 10% MAE	$\mathrm{MAE}_{\mathrm{top10}} = \operatorname*{Max}_{p \in \mathrm{Min}_{10\%}{}_1^P}\left(\frac{1}{N}\sum_{i=1}^{N}\lvert d_i^p - y_i^p \rvert\right)$	yes	Error of the last from the top 10% in native units.

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Evaluation of Single Pattern:

code	name	rule	native units	notes
`mae`	Mean Absolute Error	$\mathrm{MAE} = \frac{1}{N}\sum_{i=1}^{N}\lvert d_i - y_i\rvert$	yes	Average output error in native units, Manhattan distance without the $1/N$ averaging.
`ed`	Euclidean Distance	$\mathrm{ED} = \sqrt{\sum_{i=1}^{N}(d_i - y_i)^2}$	yes	Euclidean Distance between desired and actual outputs in native units.
`mse`	Mean Square Error	$\mathrm{MSE} = \frac{1}{N}\sum_{i=1}^{N}(d_i - y_i)^2$	no	Error function for LMS algorithms.
`rmse`	Root Mean Square Error	$\mathrm{RMSE} = \sqrt{\frac{1}{N}\sum_{i=1}^{N}(d_i - y_i)^2}$	no	

Symbols:

d_i^p	Desired value of i-th output from the p-th pattern.
y_i^p	Actual value of i-th output from the p-th pattern.
N	Number of outputs.
P	Number of patterns in the dataset.
$\underset{p=1}{\overset{P}{\mathrm{Md}}}\left(f(y^p)\right)$	Median value of f for all values of y^p between $p=1$ to P.
$\underset{p \in \mathrm{Min}_{10\%}{}_1^P}{\mathrm{Max}}\left(f(y^p)\right)$	Maximum from minimal 10% of f for all y^p between $p=1$ to P.