Error quantifiers

name	formula
relative	$\mathrm{RE}_i = \sum_{j=1}^{n_i} \frac{w_{ij}}{w_{i+}} \frac{|d_{ij}-p_{ij}|}{|d_i|}$
mean relative	$\mathrm{MRE} = \sum_{i=1}^{n} \frac{w_{i+}}{w_{++}} \mathrm{RE}_i$
symm squared	$\mathrm{SSE}_i = 2 \sum_{j=1}^{n_i} \frac{w_{ij}}{w_{i+}} \frac{(d_{ij}-p_{ij})^2}{d_i^2+p_i^2}$
symm mean squared	$\mathrm{SMSE} = \sum_{i=1}^{n} \frac{w_{i+}}{w_{++}} \mathrm{SSE}_i$
symm absolute	$\mathrm{SAE}_i = 2 \sum_{j=1}^{n_i} \frac{w_{ij}}{w_{i+}} \frac{|d_{ij}-p_{ij}|}{|d_{ij}|+|p_{ij}|}$
symm mean absolute	$\mathrm{SMAE} = \sum_{i=1}^{n} \frac{w_{i+}}{w_{++}} \mathrm{SAE}_i$

$$\text{mean data } d_i = \frac{1}{n_i} \sum_{j=1}^{n_i} d_{ij}; \quad \text{mean prediction } p_i = \frac{1}{n_i} \sum_{j=1}^{n_i} p_{ij}$$

$$w_{i+} = \sum_{j=1}^{n_i} w_{ij}; \quad w_{++} = \sum_{i=1}^{n} w_{i+} \text{ with } w_{ij} \geq 0 \quad \text{for all} \quad i,j$$

If $n_i = 1$ and $w_{i+} = 0$, then $w_{ij}/w_{i+} = 1$; Default: $w_{ij} = 1$