Loss functions

name	formula
symm bounded	$F_{sb} = \sum_{i=1}^{n} \sum_{j=1}^{n_i} \frac{w_{ij}^0}{n_i} \frac{(d_{ij}-p_{ij})^2}{d_i^2+p_i^2}$
symm unbounded	$F_{ub} = \sum_{i=1}^{n} \sum_{j=1}^{n_i} \frac{w_{ij}^0}{n_i} (d_{ij} - p_{ij})^2 (d_i^{-2} + p_i^{-2})$
relative error	$F_{re} = \sum_{i=1}^{n} \sum_{j=1}^{n_i} \frac{w_{ij}^0}{n_i} \frac{(d_{ij}-p_{ij})^2}{d_i^2}$
symm mean abs error	$F_{SMAE} = 2 \sum_{i=1}^{n} \sum_{j=1}^{n_i} \frac{w_{ij}^0}{n_i} \frac{\lvert d_{ij}-p_{ij} \rvert}{\lvert d_{ij} \rvert + \lvert p_{ij} \rvert}$

$$w_{ij}^0 = 1(\text{by default}); \quad d_i = \frac{1}{n_i} \sum_{j=1}^{n_i} d_{ij}; \quad p_i = \frac{1}{n_i} \sum_{j=1}^{n_i} p_{ij}$$