$$\begin{aligned} \text{MAE} &= \frac{1}{N} \sum_{i=1}^{N} \left| \hat{b}_i - b_i \right| \\ \text{MSE} &= \sum_{i=1}^{N} \left((\hat{l}_i + p_i)^2 + (\hat{r}_i + p_i)^2 \right) \\ \text{RMSE} &= \sqrt{\text{MSE}} \\ \text{Relative MAE} &= \frac{\text{MAE}}{\sum_{i=1}^{N} (r_i - l_i)} \cdot 100\% \end{aligned}$$