

# Log-likelihood metric

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## 1 Formulation

$$LL(tr^{gt}, \{tr_i^{pred}\}, \{w_i\}) = \log(\sum_{i=1}^M w_i \prod_{t=1}^T \mathcal{N}(p_t^{gt} | p_{i,t}^{pred}, \sigma^2 I)),$$

where  $M$  is the number of modes,  $\sum_{i=1}^M w_i = 1$  are the mode weights,  $T$  is the number of trajectory points,  $p_t \in \mathbb{R}^2$  is one trajectory point. We use  $\sigma = 1$  when evaluating predictions.