

Simple Bound

- ▶ Use uniform initial weights $w_i^1 = 1/N$
- ▶ Total Weight is at least the weight of the best expert.

$$\begin{aligned} L_A^T &= -\log W^{T+1} = -\log \sum_{i=1}^N w_i^{T+1} \\ &= -\log \sum_{i=1}^N \frac{1}{N} e^{-L_i^T} = \log N - \log \sum_{i=1}^N e^{-L_i^T} \end{aligned}$$