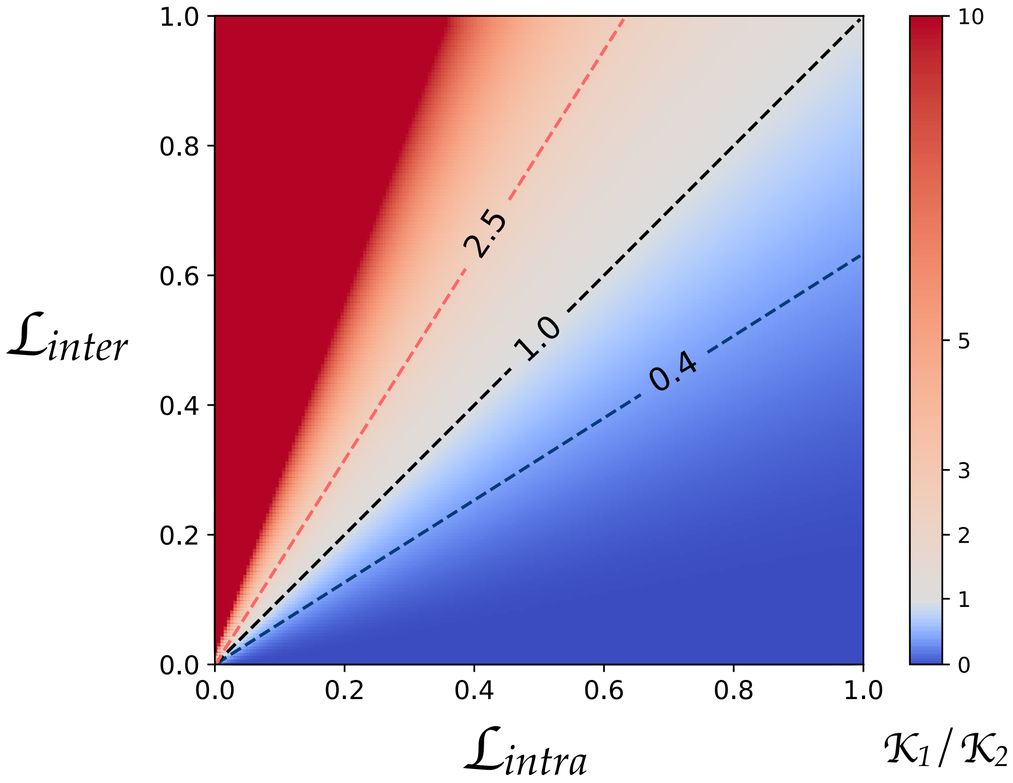
Adaptive Loss Weight v2

Problem: Double effects of deceleration: exponential decay + weight

Proposal: $$\mathcal{L}_{emb} = \mathcal{K}\left(\frac{\hat{\mathcal{L}}_{inter}}{\hat{\mathcal{L}}_{intra}}\right) \cdot \mathcal{L}_{inter} + \mathcal{K}\left(\frac{\hat{\mathcal{L}}_{intra}}{\hat{\mathcal{L}}_{inter}}\right) \cdot \mathcal{L}_{intra}$$



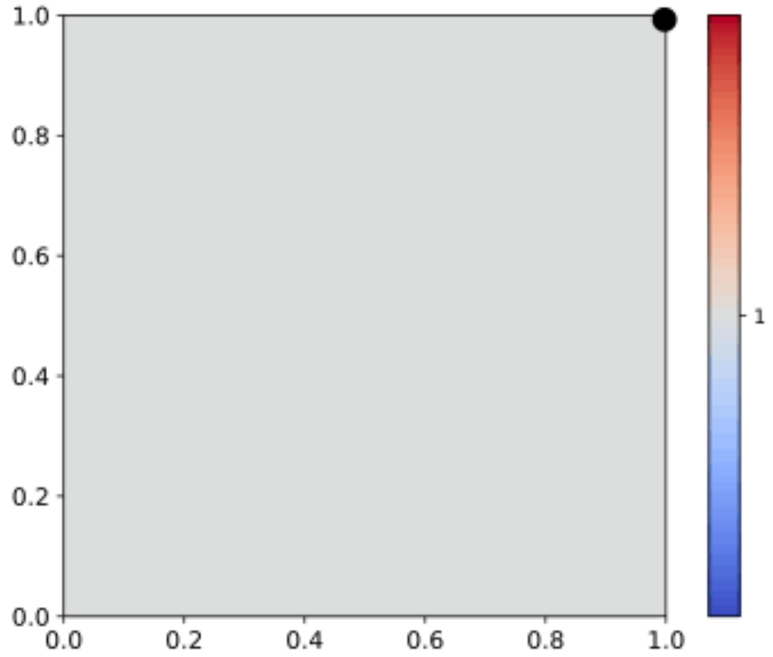
$$\mathcal{K}(\omega) = \frac{5}{1 + 4 \cdot \exp(1 - \omega)}$$

$\mathcal{K}_1 / \mathcal{K}_2$ *(ratio of weights)*

$$= \mathcal{K}\left(\frac{\hat{\mathcal{L}}_{inter}}{\hat{\mathcal{L}}_{intra}}\right) / \mathcal{K}\left(\frac{\hat{\mathcal{L}}_{intra}}{\hat{\mathcal{L}}_{inter}}\right)$$

Adaptive Loss Weight: Not (yet) Working

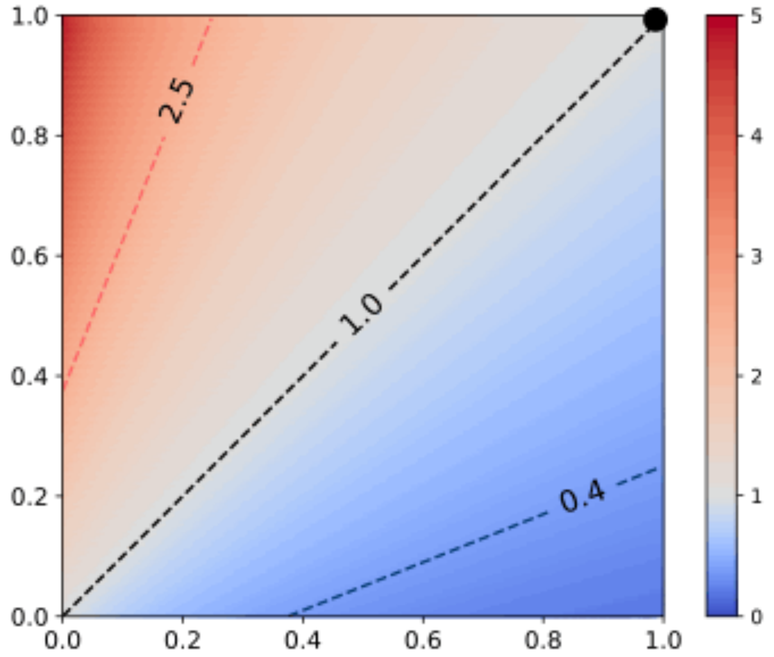
$\mathcal{L}_{inter}$ $\mathcal{K}_1 / \mathcal{K}_2$



$\mathcal{L}_{intra}$

0.879

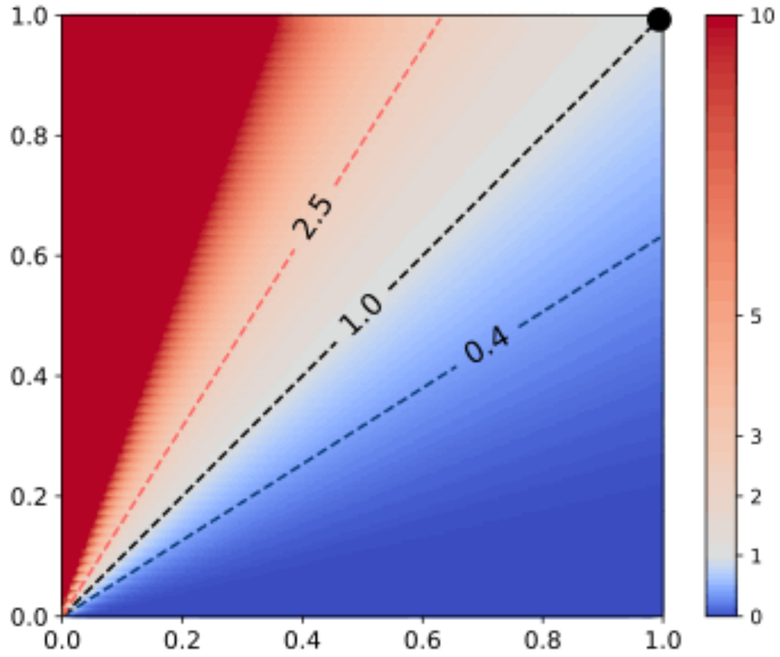
$\mathcal{L}_{inter}$ $\mathcal{K}_1 / \mathcal{K}_2$



$\mathcal{L}_{intra}$

0.860

$\mathcal{L}_{inter}$ $\mathcal{K}_1 / \mathcal{K}_2$



$\mathcal{L}_{intra}$

0.842