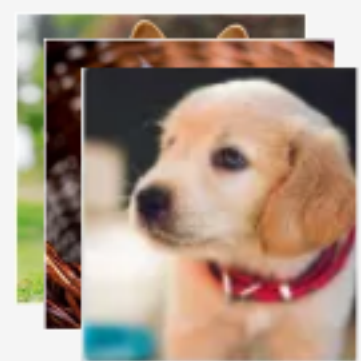


Contrastive Clustering Module



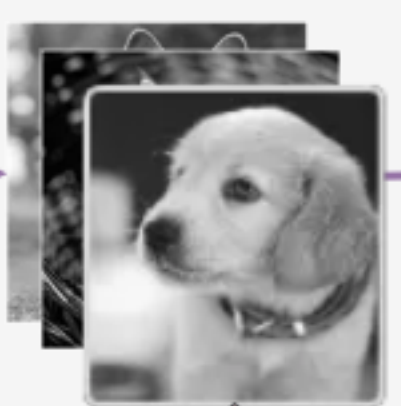
Encoder

projector

$$\phi_{proj}(\cdot)$$

Z

\hat{Z}



Encoder

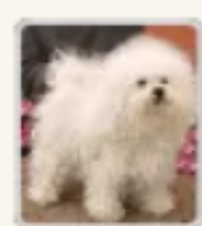
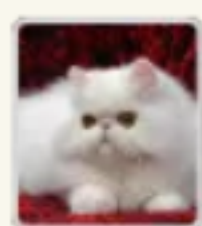
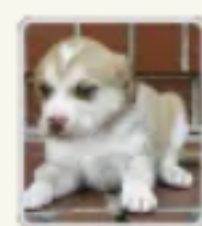
cluster

$$\phi_{cluster}(\cdot)$$

P

\hat{P}

K=4



...

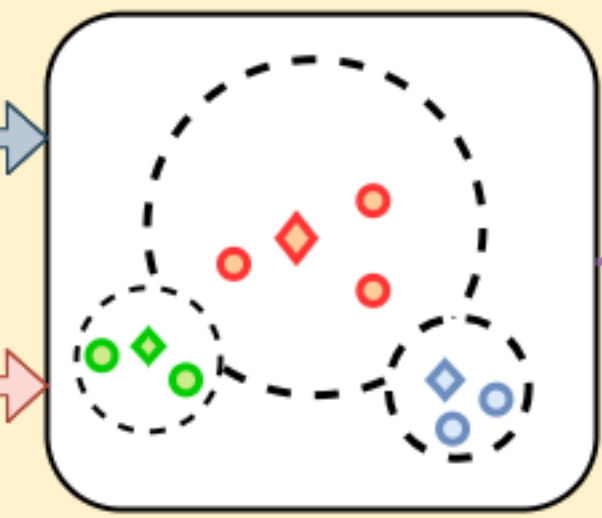


Prototypes Generation Module

Gaussian distribution

Prototypes

Queue



\otimes

\mathcal{L}_p

\mathcal{L}_z

$$M = U \cdot V^T \odot \mathbb{I}(u_{ij} > \alpha)$$

Similarity Relationship Construction Module