Global scale

$\Psi^1(f_l)$

Φ

Φ

1 POD embedding

$(W + H) \times$ C dimensions

Local scale

$\Psi^2(f_l)$

H

C

W

4 POD embeddings

$4 \times (\frac{W}{2} + \frac{H}{2}) \times$ C dimensions

(a) POD embedding at global and local scales

labels S^{t-1}

image I^t

labels S^t

f^{t-1} g^{t-1} pseudo-labels $\hat{S}^{t-1}$

$\mathcal{L}_{LocalPOD}$

augmented labels $\tilde{S}^t$

f^t g^t

$\mathcal{L}_{pseudo}$

C^{t-2} **car** → C^{t-1} **dog** → C^t **person**

(b) PLOP strategy with pseudo-labeling and local POD