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# Sparse Coding for Learning Interpretable Spatio-Temporal Primitives

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- There is a typo in the 15th line in the page 1. The correct sentence is:

most approaches have focused on learning static primitives,

- There is a typo in the last equation in page 3. The correct one is:

$$\min_{\mathbf{W}, \mathbf{H}} \quad \|\mathbf{Y} - \text{vec}(\mathbf{W})\text{vec}(\mathbf{H})\|_F + \lambda\phi(\mathbf{W}) + \eta L_{p,q,r}(\mathbf{W})$$

subject to  $\forall i, j, k \quad 0 \leq H_{i,j,k} \leq 1, \quad H_{i,j,k} = H_{i,j+1,k+1}, \quad \forall k \quad \sum_{i,j} H_{i,j,k} \leq \delta_{train}$

- There is a typo in the last paragraph in page 3. The correct sentence is:

We thus perform alternate minimization.

- There is a typo in the caption of figure 3. The correct one is:

$$\begin{array}{cccc} (\text{walk}, \sigma^2 = 50, e_{PCA}) & (\text{walk}, \sigma^2 = 100, e_{PCA}) & (\text{walk}, \sigma^2 = 50, e_{59D}) & (\text{walk}, \sigma^2 = 100, e_{59D}) \\ (\text{run}, \sigma^2 = 50, e_{PCA}) & (\text{run}, \sigma^2 = 100, e_{PCA}) & (\text{run}, \sigma^2 = 50, e_{59D}) & (\text{run}, \sigma^2 = 100, e_{59D}) \end{array}$$

- There is a typo in the caption of figure 4. The correct one is:

$$\begin{array}{cccc} (\text{walk}, d=4, e_{PCA}) & (\text{walk}, d=10, e_{PCA}) & (\text{walk}, d=4, e_{59D}) & (\text{walk}, d=10, e_{59D}) \\ (\text{run}, d=4, e_{PCA}) & (\text{run}, d=10, e_{PCA}) & (\text{run}, d=4, e_{59D}) & (\text{run}, d=10, e_{59D}) \end{array}$$

- There is a typo in the caption of figure 5. The correct one is:

$$(\text{run}, P=1, e_{PCA}) \quad (\text{run}, P=1, e_{59D}) \quad (\text{run}, P=2, e_{PCA}) \quad (\text{run}, P=2, e_{59D})$$

- There is a typo in the second paragraph in the page 7. The correct sentence is:

Note that our method outperforms sparse coding when the output is noisy.

- There is a typo in the caption of figure 7. The correct sentence is:

Error when using soft constraints  $|H_{i,j,k} - H_{i,j+1,k+1}| \leq \alpha$  as a function of  $\alpha$ .