Learns a target hyperplane \( R \) integrating the Laplacian regularizer into the MMDT [4] for multi-category transform-based adaptation.

- Can use weights \( \beta \)
- Use multi-category MMDT objective [4] as a baseline (da only).

Multi-category classification setting
- Can use weights \( \beta_{j,j'} \) to encode confidence that a pair of examples belong to the same (unlabeled) track.
- Use PMT-SVM objective [1] as baseline (da only).

\( \beta_{j,j'} = 1/|\delta_{j,j'}| \) if \( \delta_{j,j'} > 0 \); 0 otherwise.

\( \delta_{j,j'} = \delta_{x_j,x_j'} = |f_j - f_j'| \) if the examples come from the same track; 0 otherwise.

8 labeled examples per category in source domain; 1 in target domain.

**References**

