# Supplemental Materials of the Paper Namely "Semi-Supervised Ranking for Re-Identification with Few Labeled Image Pairs"

Andy J Ma and Ping Li

Department of Statistics and Biostatistics, Rutgers University

## Results Using Direct Selection of Positives

We compare the proposed Semi-Supervised Ranking method by Increasing Positive Prior (SSR-IPP) with the Semi-Supervised Ranking method using Direct Selection (SSR-DS) by (7) in the manuscript. CMC curves of SSR-IPP and SSR-DS are shown in Fig. A1. From Fig. A1, we can see that SSR-IPP outperforms SSR-DS, since positive image pairs can be selected more accurately from the unlabeled data by increasing the positive prior.
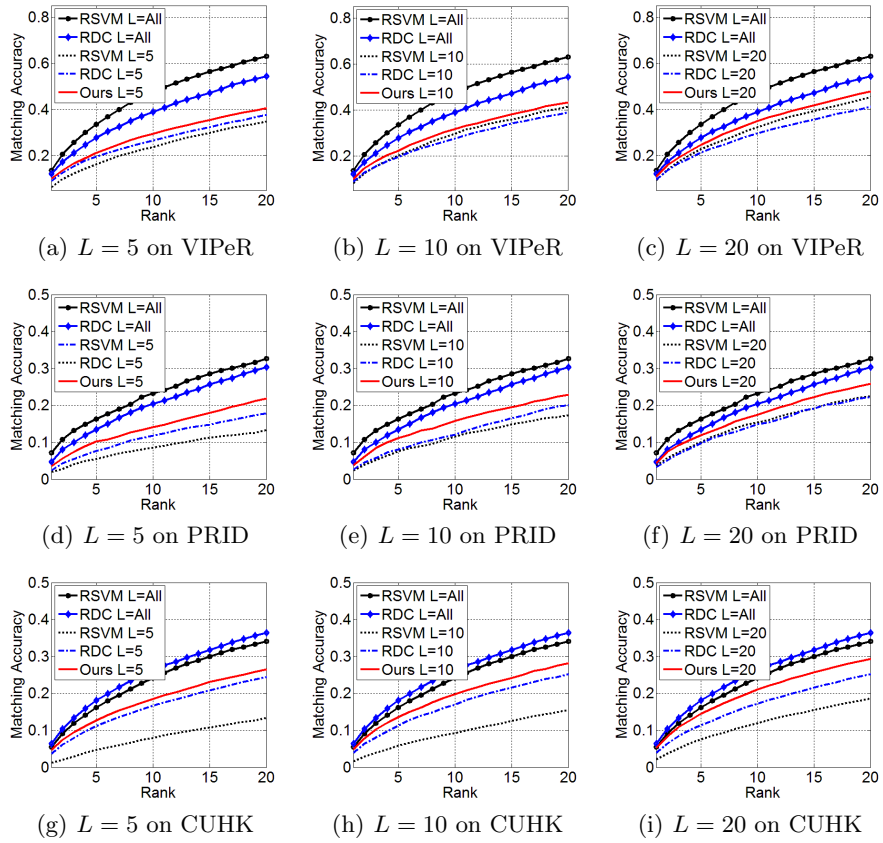
## Results Using Different Features

To evaluate the robustness of the proposed method, we show the CMC curves of RSVM, RDC and our method in Fig. A2 using the features (different from those in the manuscript) as reported in [1–3]. From Fig. A2, we can see that similar conclusions can be obtained. Our method outperforms RSVM and RDC by learning from the unlabeled data with a different feature vector, which convinces the robustness of the proposed method.

## References

1. Gray, D., Tao, H.: Viewpoint invariant pedestrian recognition with an ensemble of localized features. In: ECCV. (2008)
2. Prosser, B., Zheng, W.S., Gong, S., Xiang, T.: Person re-identification by support vector ranking. In: BMVC. (2010)
3. Zheng, W.S., Gong, S., Xiang, T.: Reidentification by relative distance comparison. TPAMI **35** (2013) 653–668
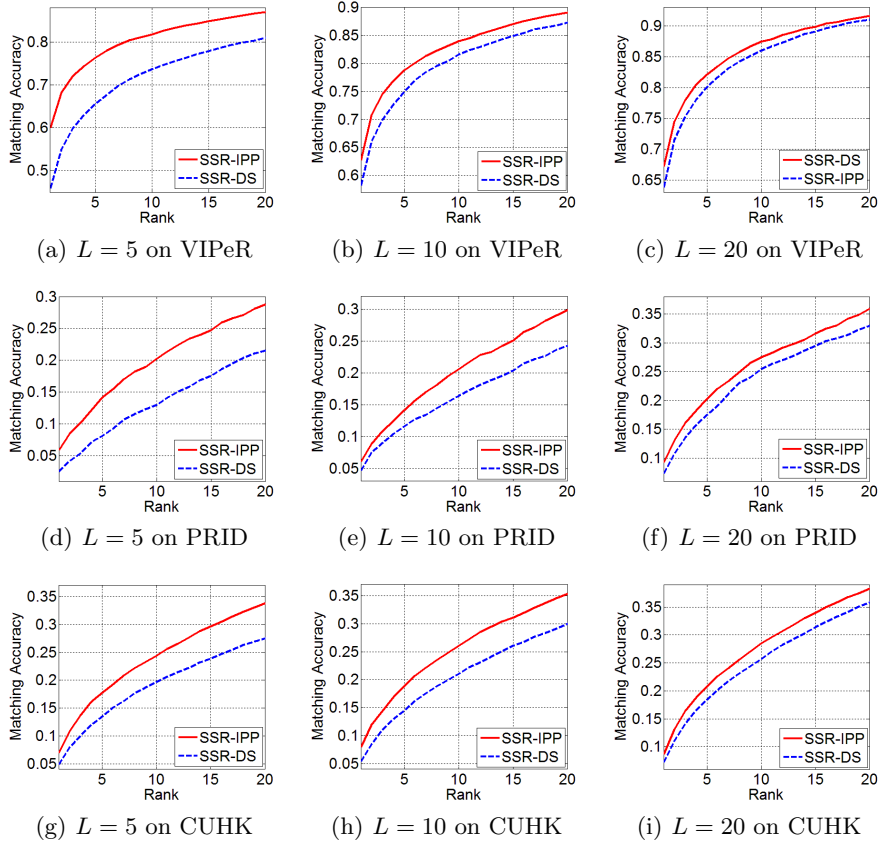
**Fig. A1.** CMC curves with different numbers ($L = 5, 10, 20$) of labeled image pairs on (a)-(c) VIPeR, (d)-(f) PRID and (g)-(i) CUHK dataset

**Fig. A2.** CMC curves with different numbers ($L = 5, 10, 20$) of labeled image pairs on (a)-(c) VIPeR, (d)-(f) PRID and (g)-(i) CUHK dataset