Subgraph Matching using Compactness Prior
for Robust Feature Correspondence
- Supplementary Material -

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1. Additional Experimental Results

In this section, we provide more comparative experimental results.In Section 1.1, the experimental results on the whole object classes in the Willow dataset are given. Some qualitative matching results of the Willow dataset are shown in Section 1.2.

1.1. Willow Object Dataset

Under the same experimental settings explained in Section 6.2 of the main paper, we have compared the performance of the proposed method with those of four state-of-the-art graph matching algorithms, namely, FGM [4], RRWM [1], IPFP [2] and SEA [3] on the whole 5 classes of objects in the Willow dataset including face, car, wine bottle, motorbike, and duck. Figure 1 shows the resulting balanced F-score plots according to the the number of outliers.

1.2. Qualitative Results

In this section, we provide some examples of matching results for the Willow dataset in Section 1.1. The results are shown in Figure 2 to Figure 6, demonstrating superiority of the proposed method over the other existing methods.
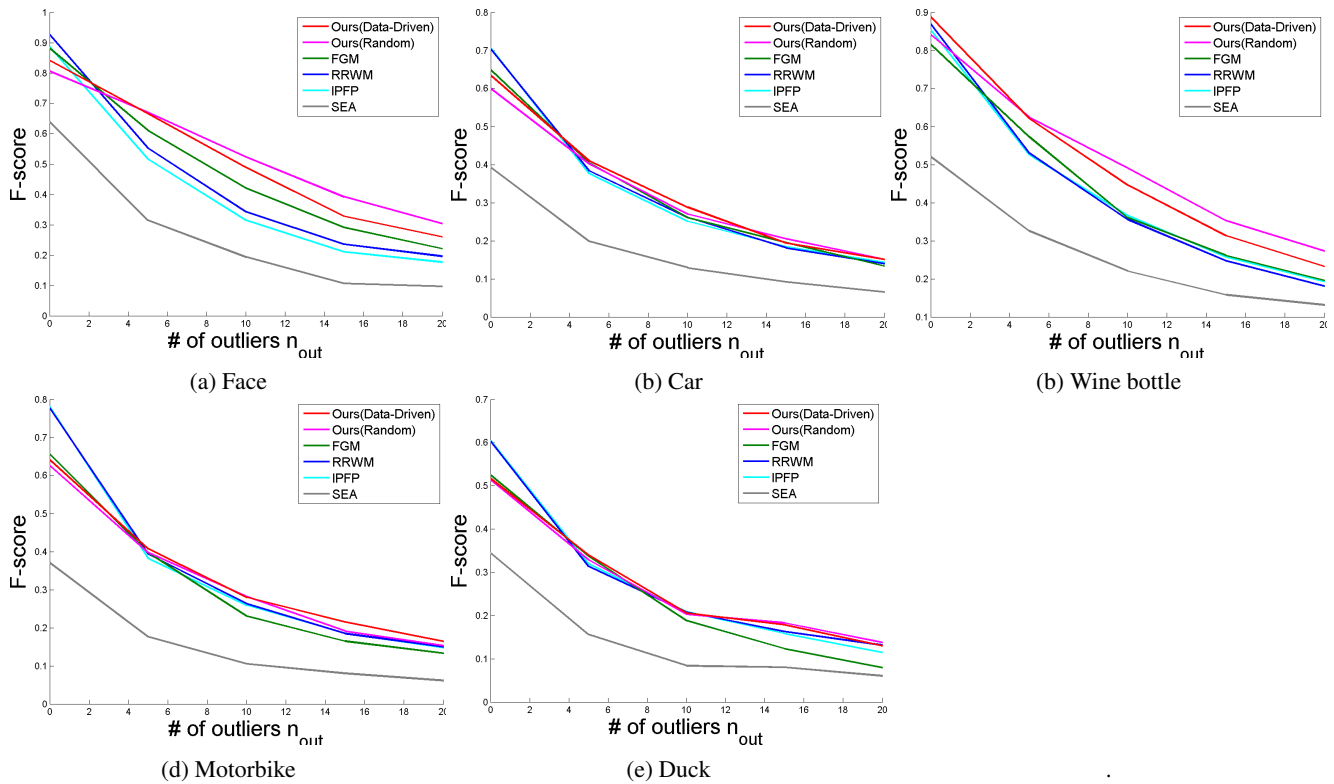
Figure 1. The results of the five different classes of the Willow dataset (face, wine bottle, car, motorbike, duck) are shown in (a)-(e), respectively.

References

[1] M. Cho, J. Lee, and K. M. Lee. Reweighted random walks for graph matching, 2010. 1

[2] M. Leordeanu and M. Hebert. An integer projected fixed point method for graph matching and map inference, 2009. 1

[3] H. Liu, L. J. Latecki, and Y. Shuicheng. "fast detection of dense subgraph with iterative shrinking and expansion. *IEEE Trans. Pattern Anal. Mach. Intell.*, 2013. 1

[4] F. Zhou and F. De la Torre. Deformable graph matching. In *CVPR*, 2013. 1
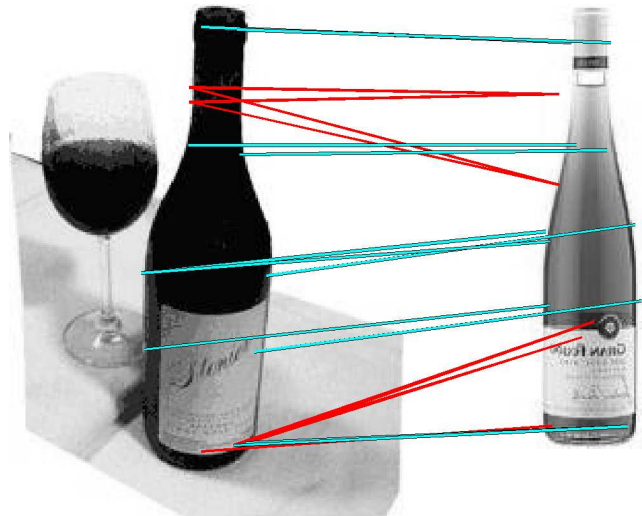
Figure 2. Example results of the real image matching using local features. True positive matches are represented by cyan lines, and false positive matches are represented by red lines.
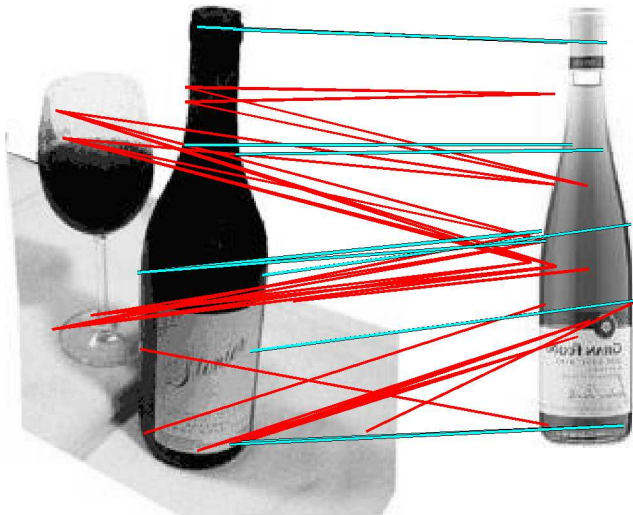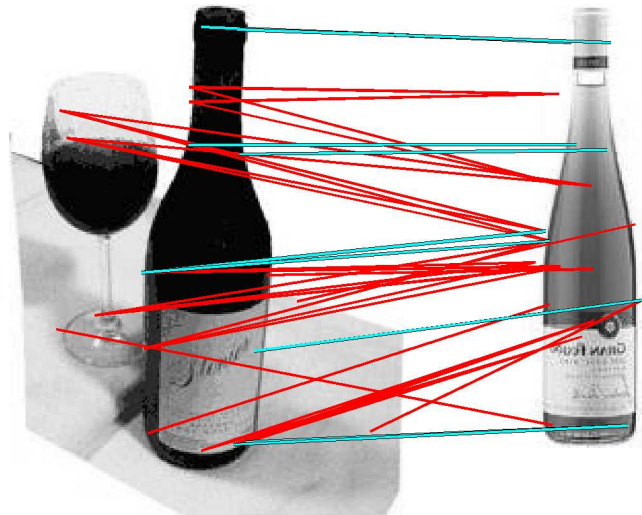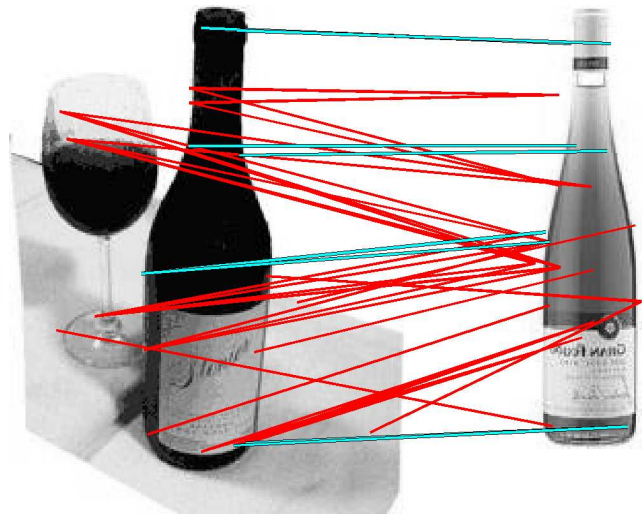
Figure 3. Example results of the real image matching using local features. True positive matches are represented by cyan lines, and false positive matches are represented by red lines.
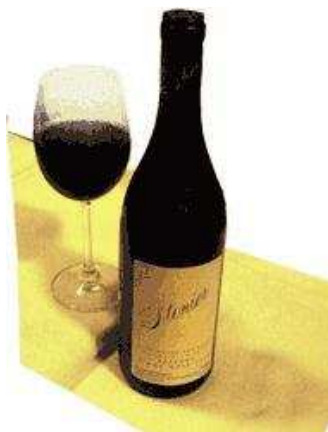
Figure 4. Example results of the real image matching using local features. True positive matches are represented by cyan lines, and false positive matches are represented by red lines.
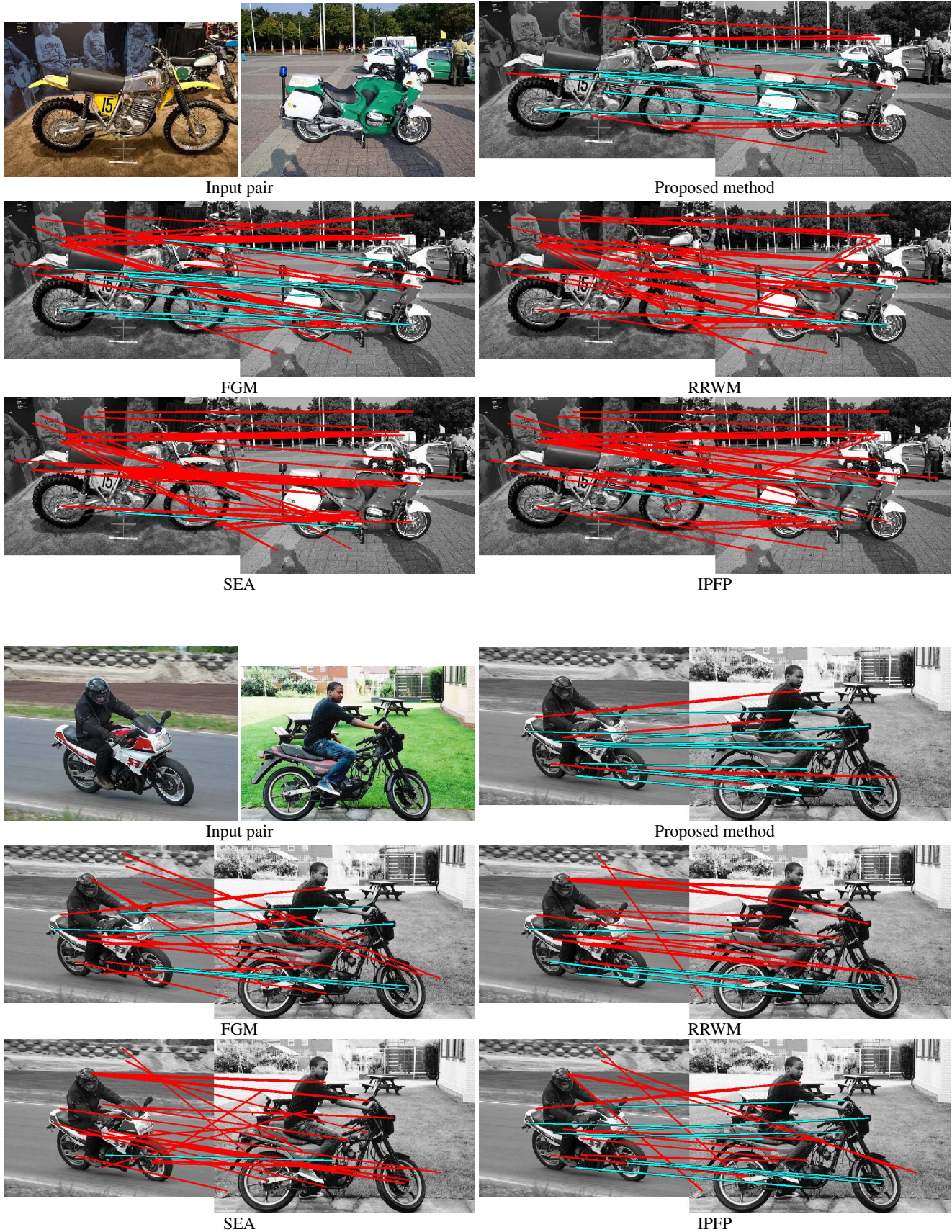
Figure 5. Example results of the real image matching using local features. True positive matches are represented by cyan lines, and false positive matches are represented by red lines.
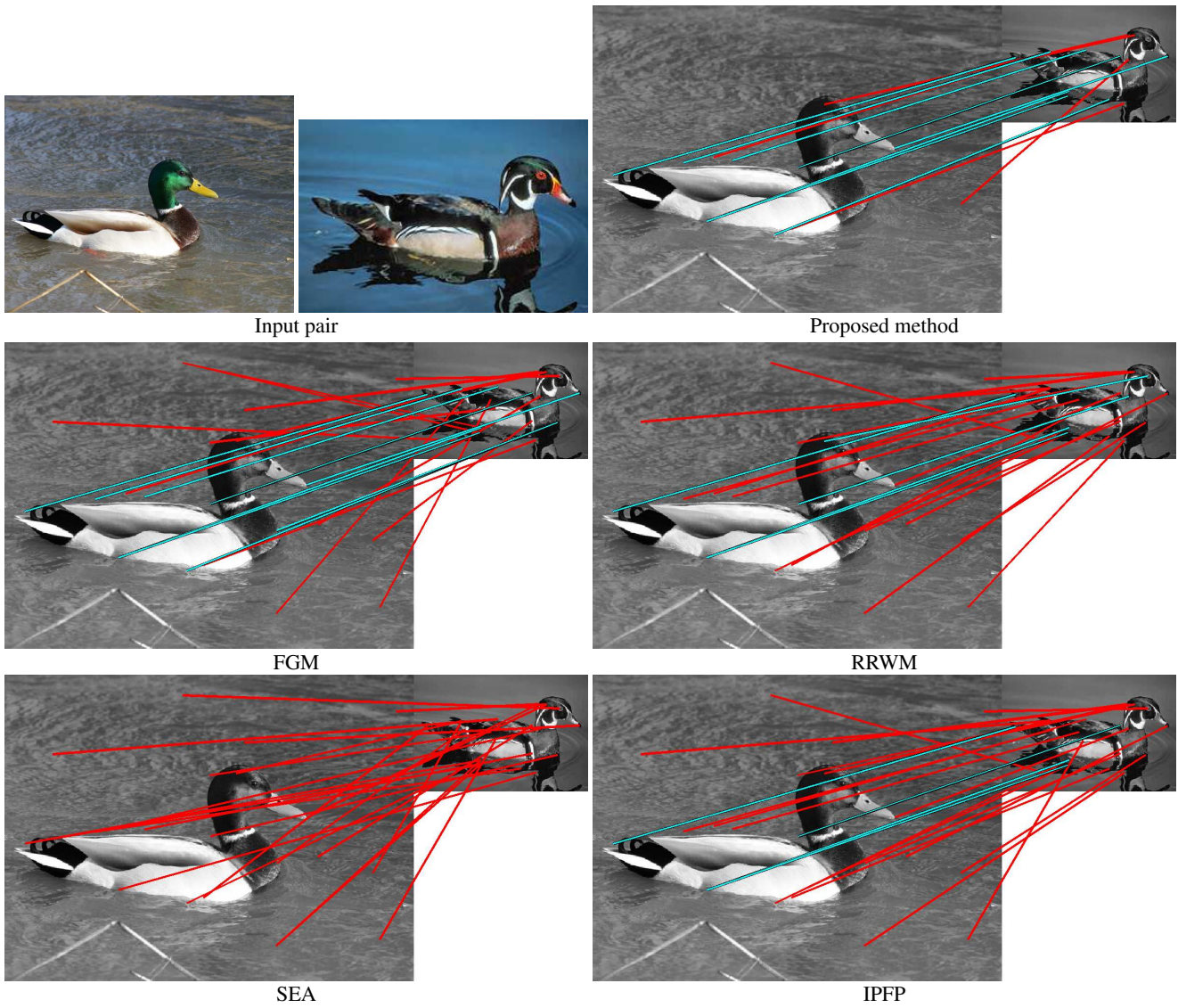
Figure 6. Example results of the real image matching using local features. True positive matches are represented by cyan lines, and false positive matches are represented by red lines.