

A Technical Appendices and Supplementary Material

A.1 Empirical Results

We further selected 2 samples from the CAVE dataset and Harvard dataset to demonstrate the performance of our method. Fig. 1 and Fig. 2 present the comparison results between our method and other SOTA methods. By zooming in on the local regions, it can be observed that our method has the most minor spatial and spectral distortions.

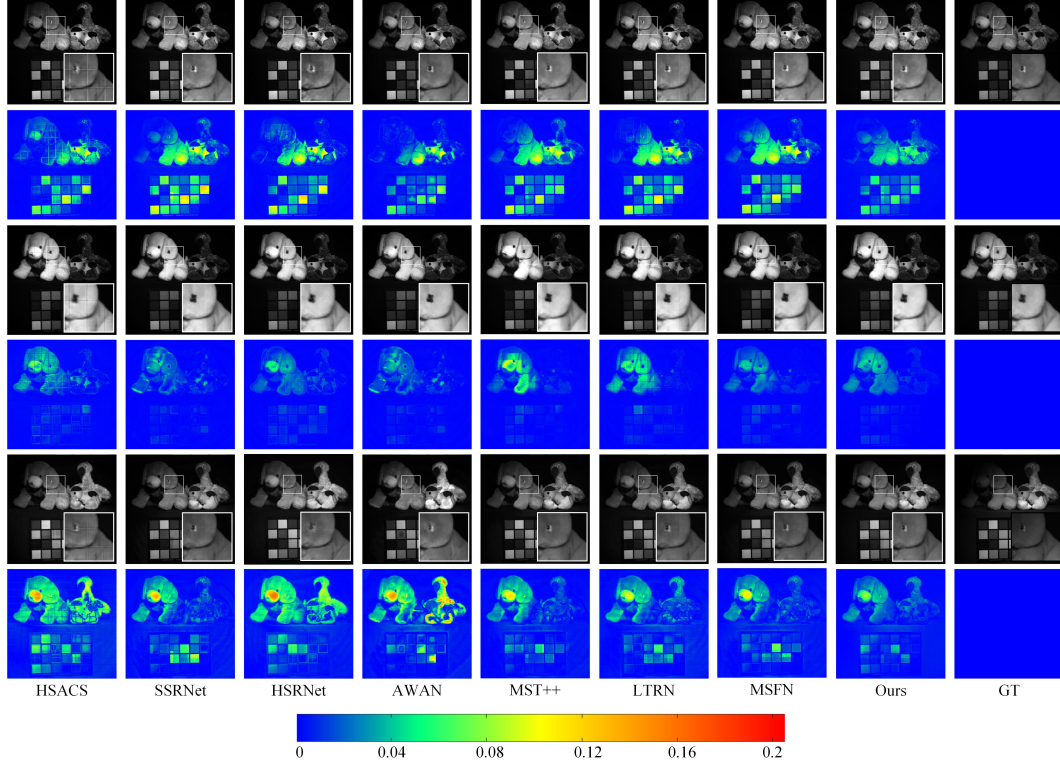


Figure 1: Comparison of the reconstruction results of different methods on one scene from the CAVE dataset, including seven SOTA methods and our FRN. We select three bands (20, 25, and 31) for visualization.

A.2 Implementation Details

When conducting ablation experiments on Recursive Levels, we set different values of M . When $M = 2$, BAMamba generated images with 6 channels ($6^2 = 36$), and uniform sampling was used to remove the redundant 5 channels. When $M = 3$, BAMamba generated images with 4 channels ($4^3 = 64$). The resulting 64-channel HSI was mapped to 32 channels by computing the channel-wise mean, and the last channel was removed.

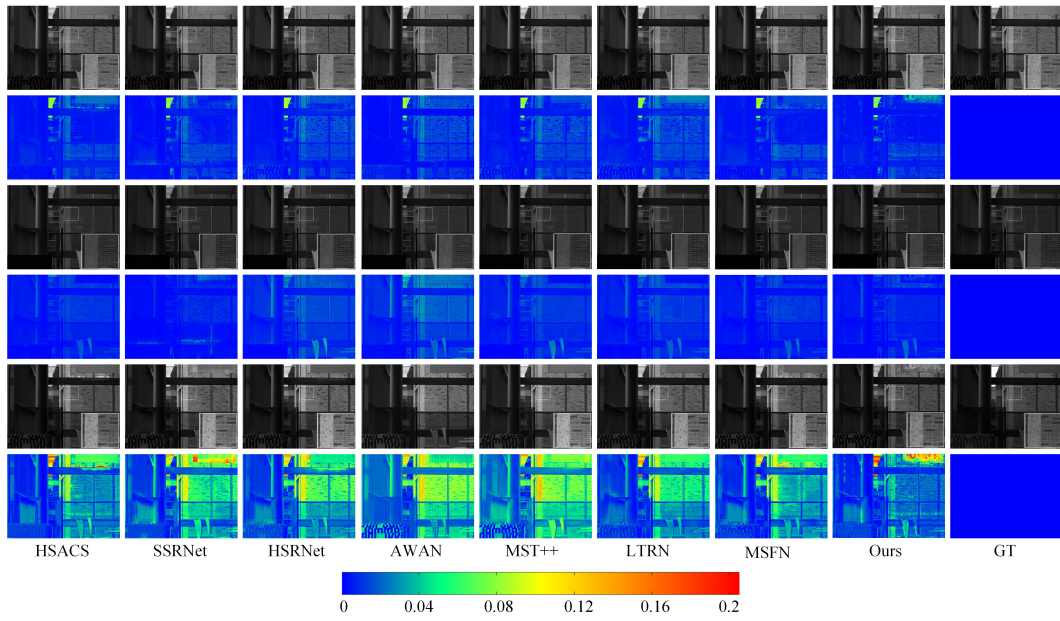


Figure 2: Comparison of the reconstruction results of different methods on one scene from the Harvard dataset, including seven SOTA methods and our FRN. We select three bands (10, 20, and 31) for visualization.