## SUPPLEMENTARY FIGURES

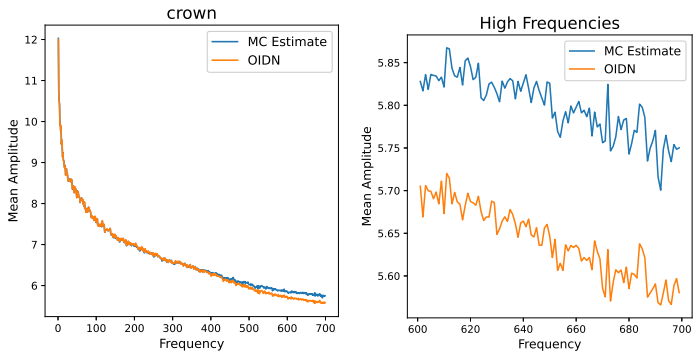


Fig. 1. Spectral analysis of the Crown scene (refer to Fig. 1 of the paper, right at the top) at 32K sample counts (spp) for the entire frequency range (left) and focused on the higher frequencies (right). The curves represent the filtered mean frequency amplitude calculated from the magnitude of the Fast Fourier Transform applied to the MC estimate and its denoised counterpart produced by Open Image Denoise (OIDN).

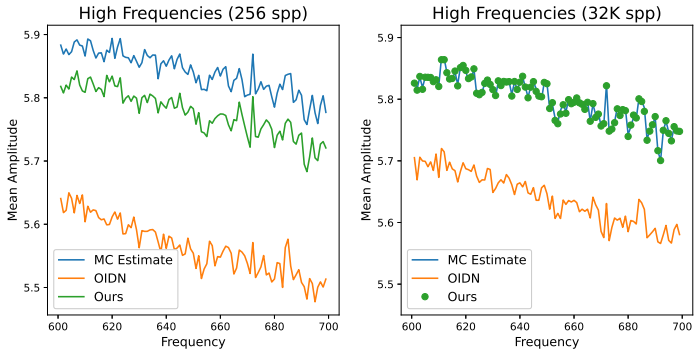


Fig. 2. Spectral analysis of the Crown scene in the same vein as Fig. 1, but including our method. Left: at sample count 256; right: at sample count 32K.

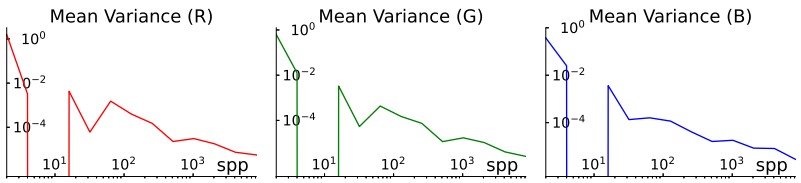


Fig. 3. An example of the mean variance of a single pixel per channel (R, G, B).

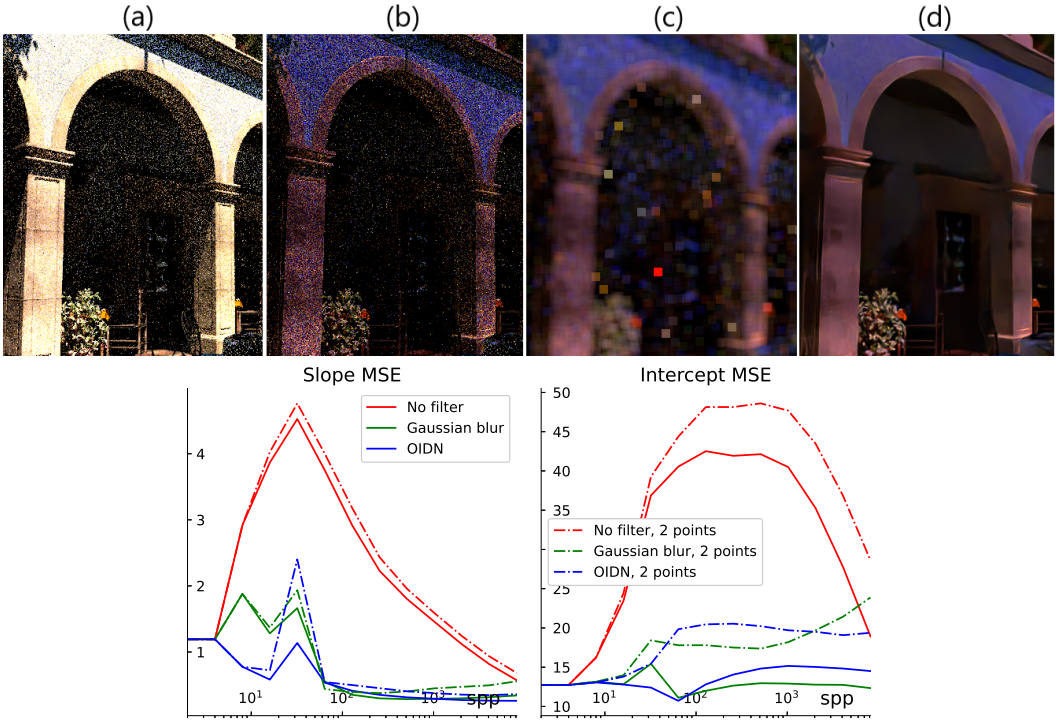


Fig. 4. San Miguel (see Fig.1 of the paper, middle at the bottom) scene crop: MC estimate (a) and its mean variance (b) at 4 sample counts; (c) is Gaussian blur (window size $w = 11$) of (b), (d) is denoised by OIDN. Plots represent MSE of the slope and the intercept of the curves, calculated on-the-fly, compared to the retrospectively calculated curves.

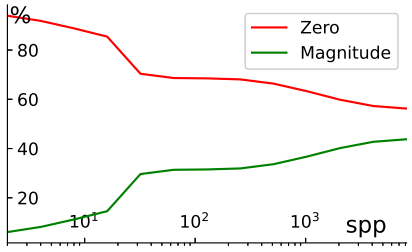


Fig. 5. The plot indicates the percentage of values blended according to Eq. 2 that were closer to the reference when negative SURE values were set to zero or to their magnitude for the San Miguel scene.

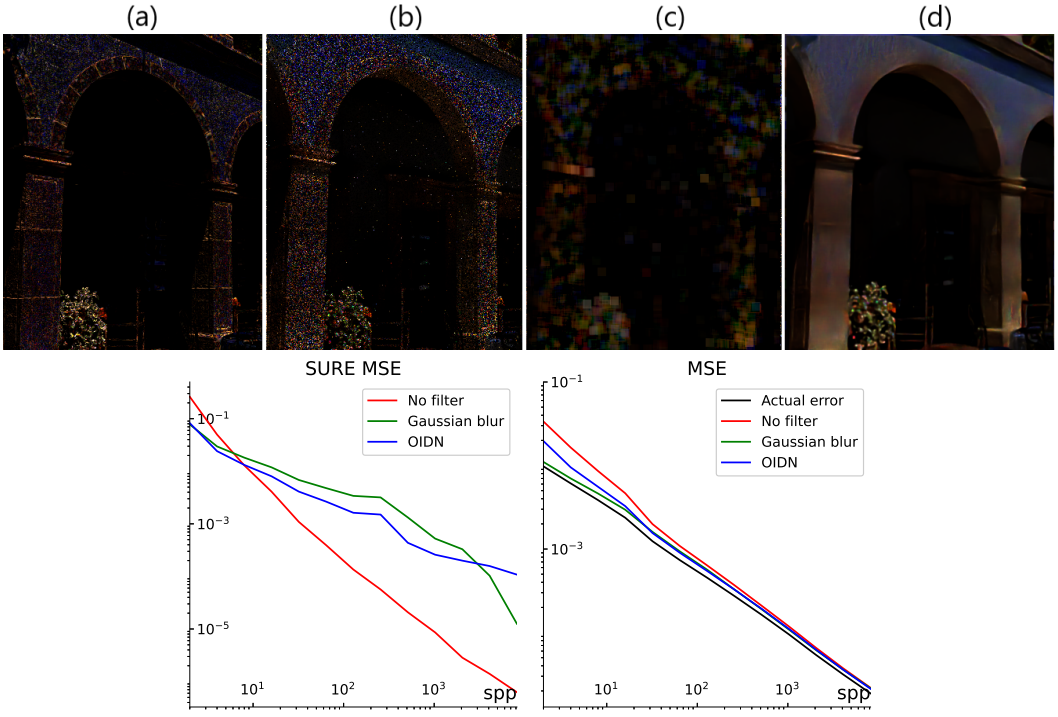


Fig. 6. San Miguel scene crop: Visual representation of MSE between the denoised image and the reference (a) and SURE of the denoised image (b) at 4 sample counts; (c) is Gaussian blur of (b), (d) is OIDN of (b). The left plot demonstrates the MSE of the SURE values with respect to the actual error calculated retrospectively, indicating improvement at lower sample counts. The right plot illustrates the MSE between the blended image and the reference using: actual error, unfiltered SURE, and filtered SURE. Here, the MSE between the blended image and the reference benefits from filtering for a longer period.

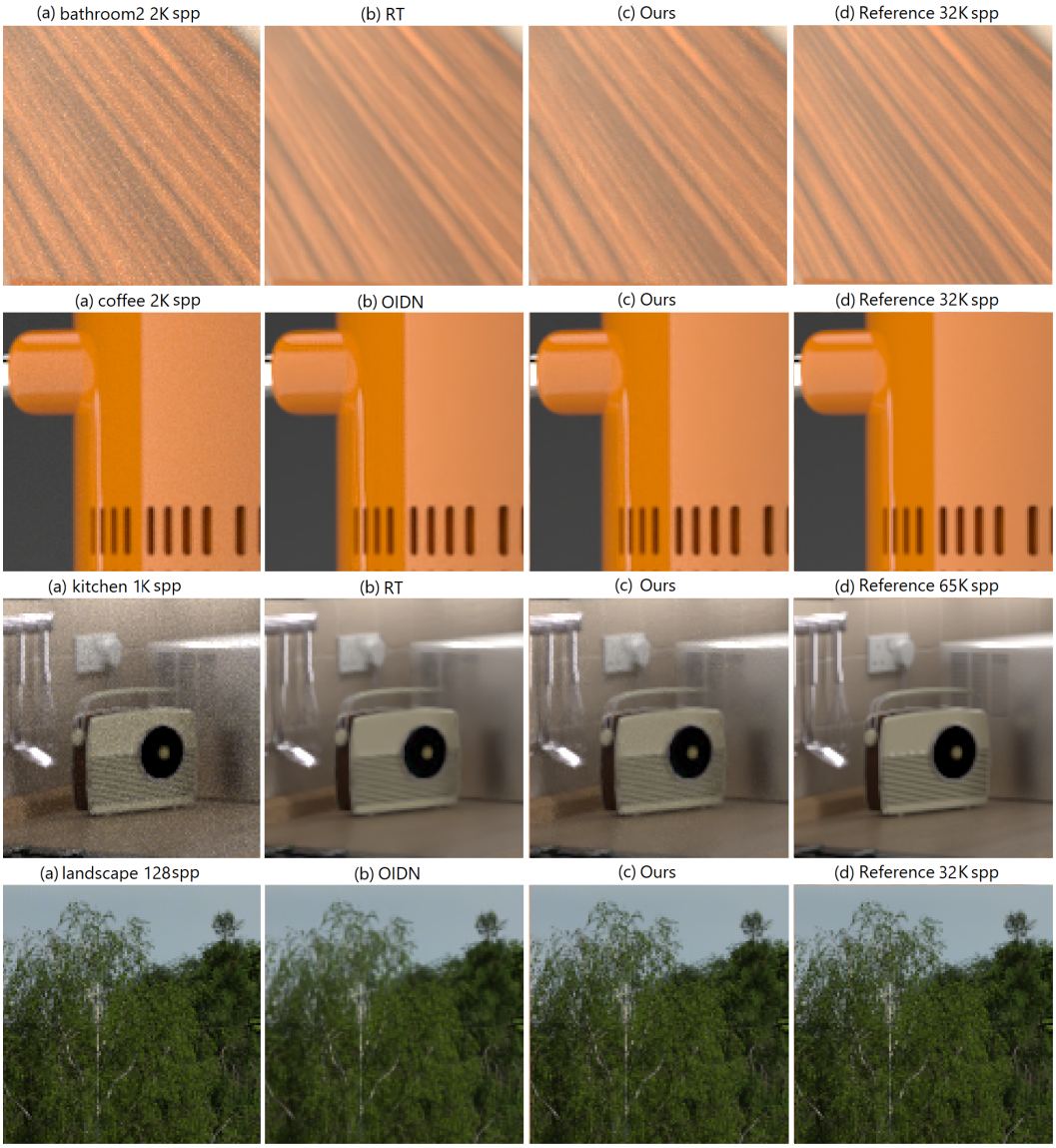


Fig. 7. Visual comparisons of the MC estimate (a) against results generated by OIDN and RT denoisers (b), and our method of curves (c) relative to the reference (d). In our method, Gaussian blur was applied for error estimates filtering.

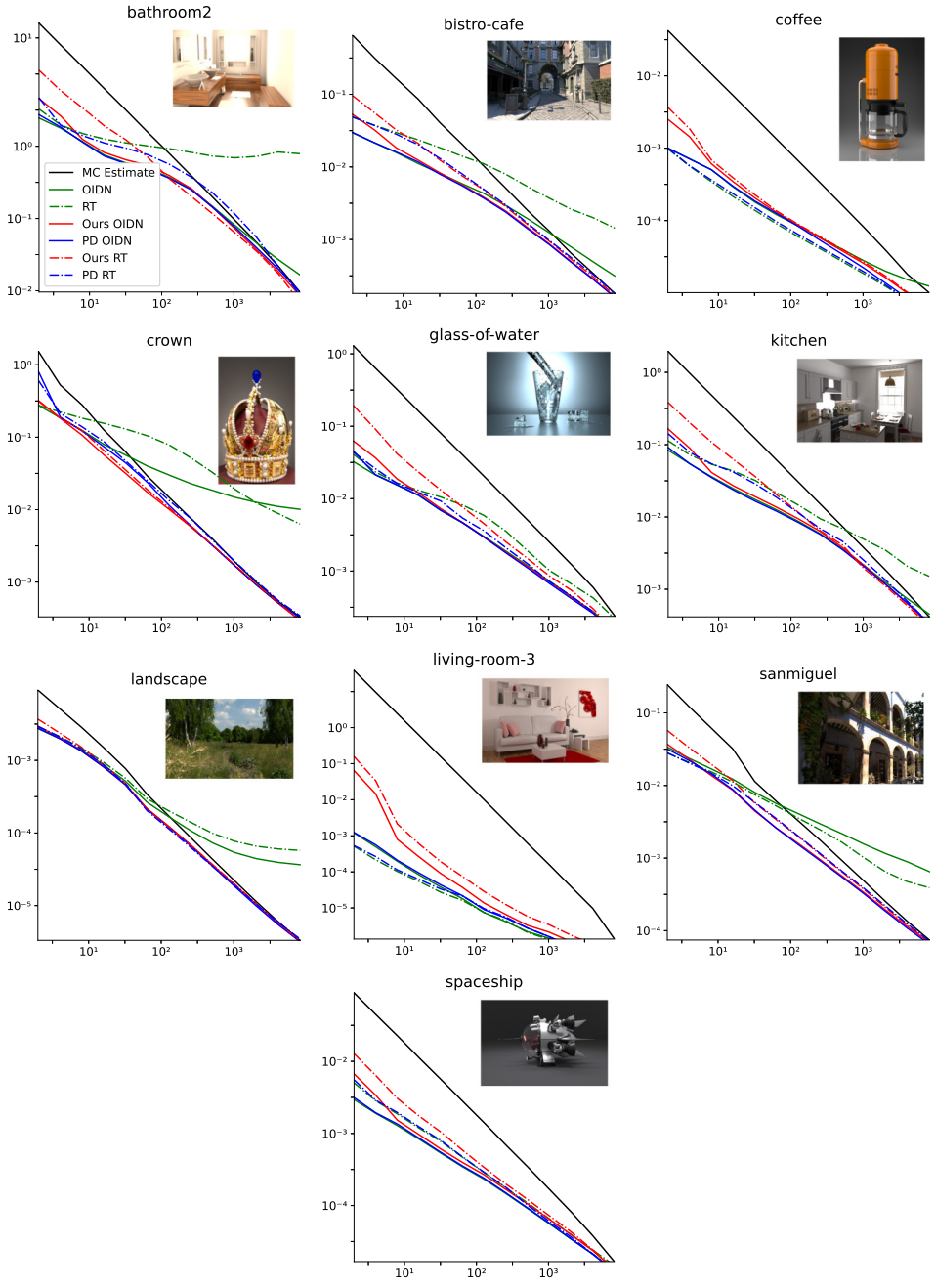


Fig. 8. Comparison of our method of curves with the progressive denoising, presented in [Firmino et al. 2022]. In our method, Gaussian blur was applied for error estimates filtering. MC Estimate, OIDN, and RT curves are presented for the reference.

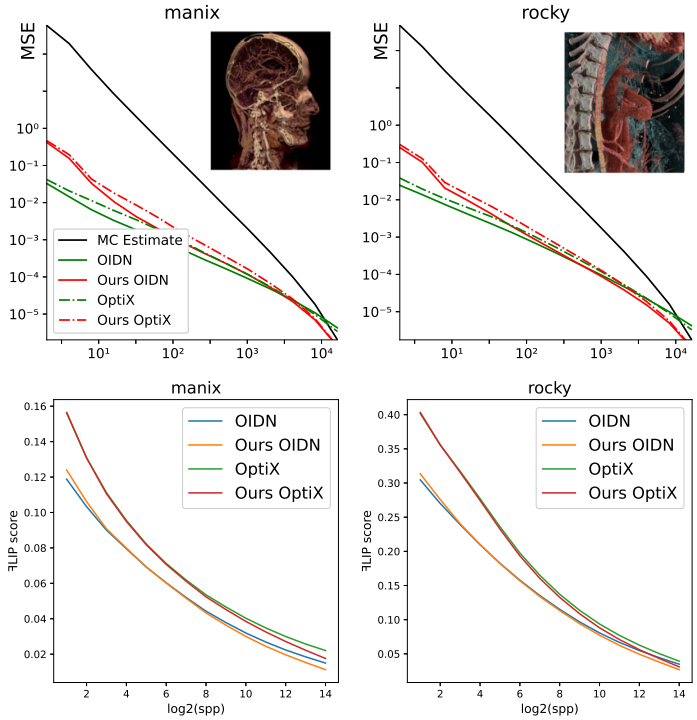


Fig. 9. Quantitative comparisons of our method with OIDN and OptiX: MSE and ꟻLIP scores. In our method, Gaussian blur was applied for error estimates filtering. Scenes were generated with AR$^2$T framework.

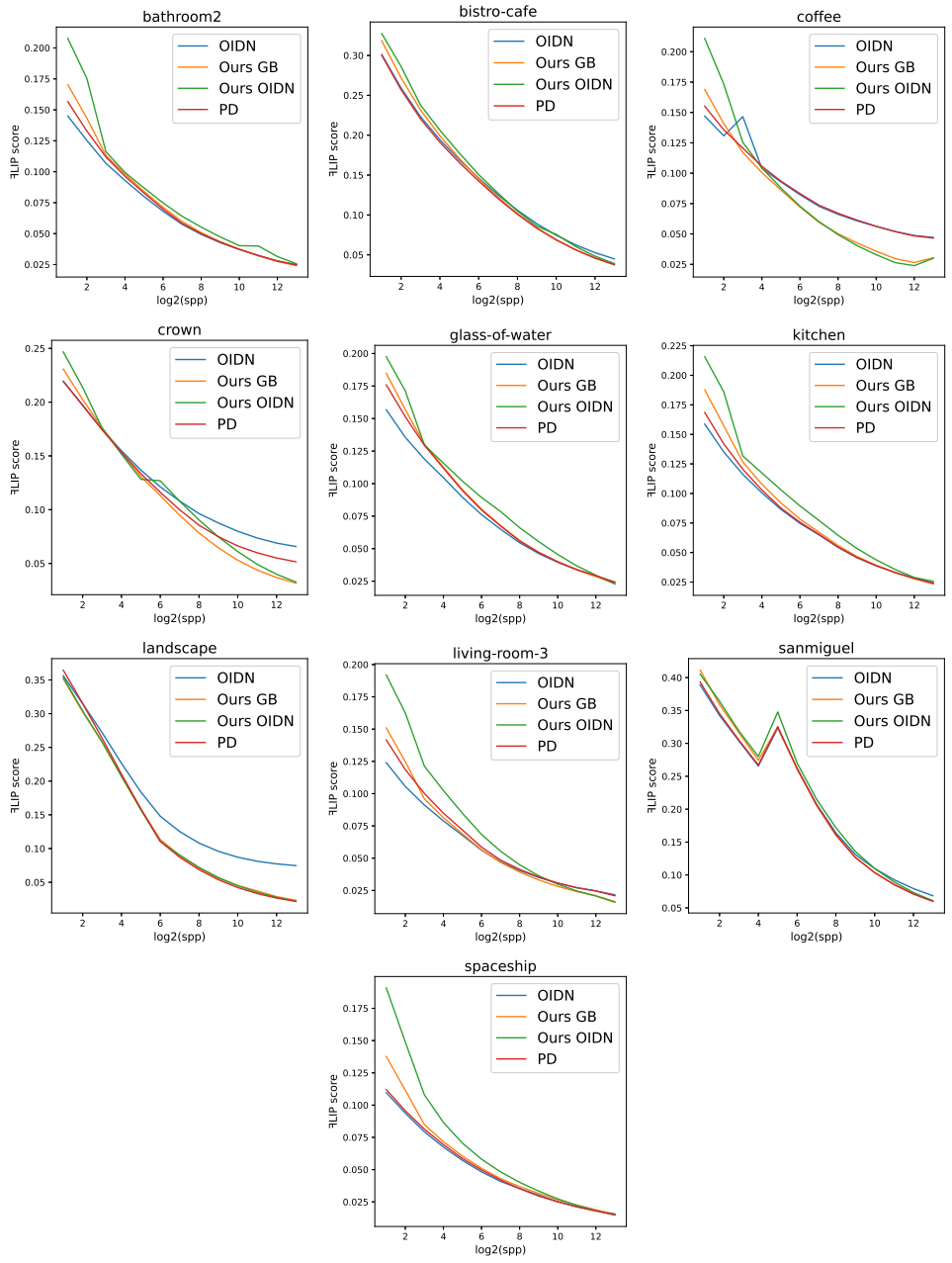


Fig. 10. ꟻLIP scores for the images denoised with OIDN, produced by our method with Gaussian blur (Ours GB) and OIDN (Ours OIDN) on estimates, and by PD.

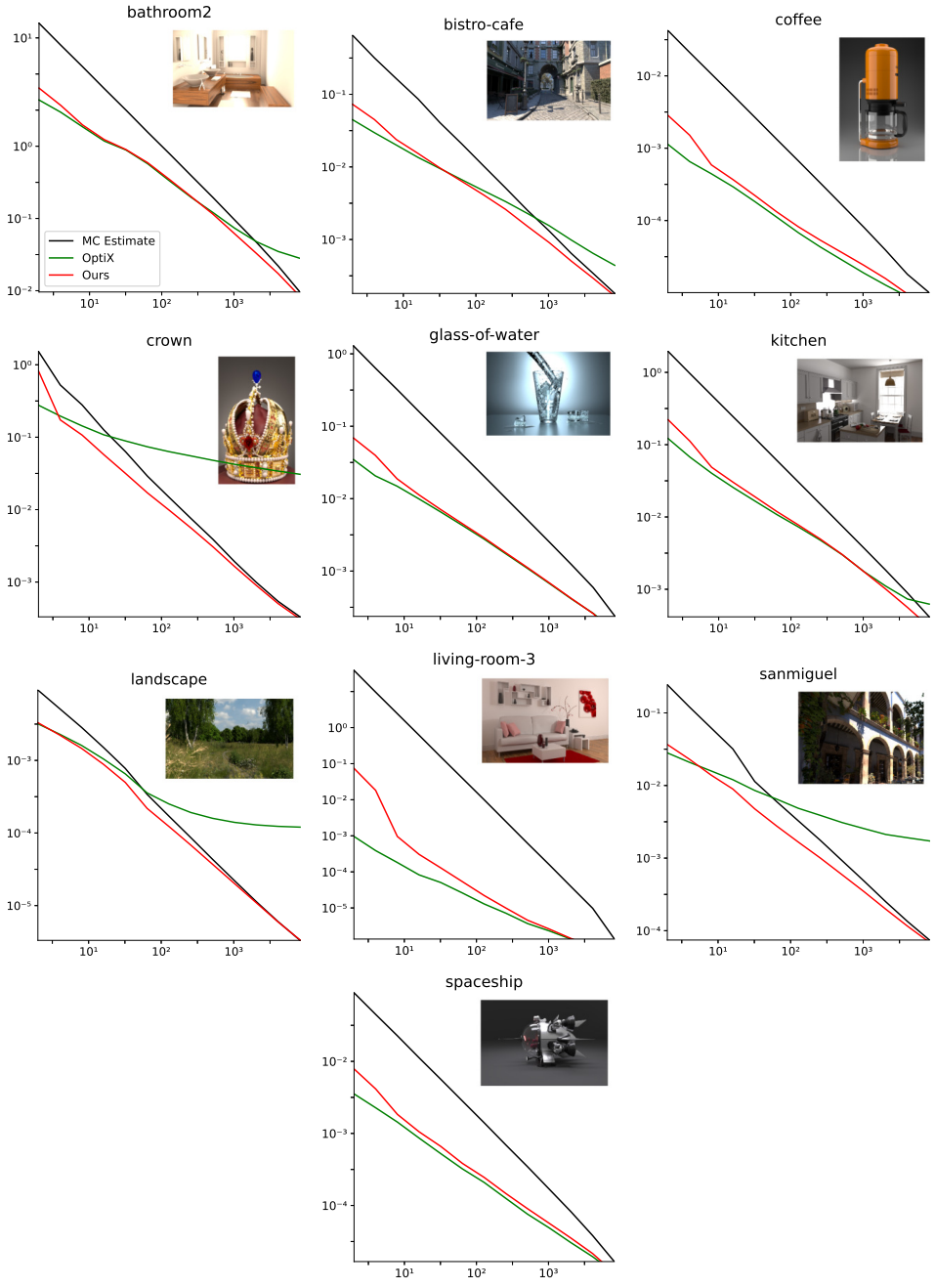


Fig. 11. MSE results obtained with our method using OptiX denoiser. In our method, Gaussian blur was applied for error estimate filtering, and OptiX was used with albedo and normal auxiliary features.