Supplemental Material: Image-Space Russian Roulette for Monte Carlo Rendering

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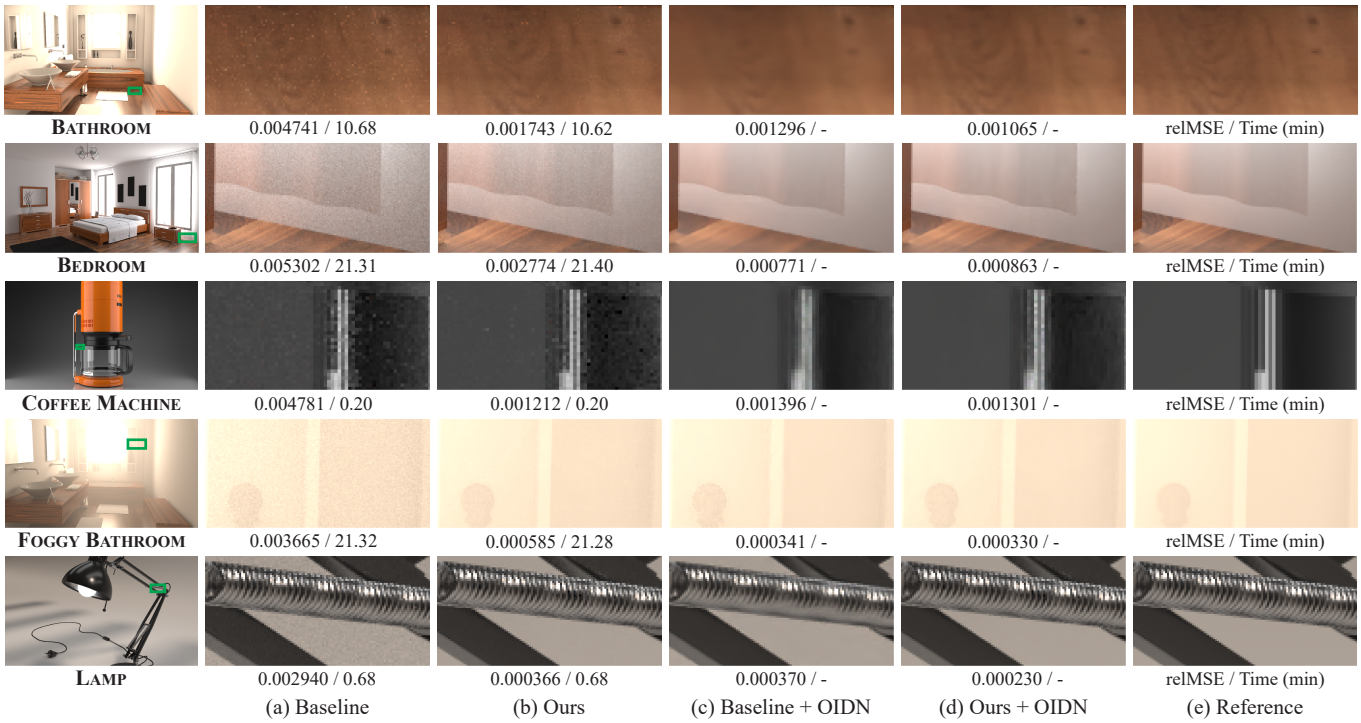

Fig. 1. Comparisons of baseline path tracing (PT) and our method before and after applying pretrained OIDN [Áfra 2026] at the full-time setting used in Fig. 8 of the main paper. OIDN reduces relMSE in all cases except Ours for the Coffee Machine scene, where relMSE increases slightly. Ours + OIDN achieves lower relMSE than PT + OIDN in four of the five scenes, although these gains are smaller than those in the raw unbiased results. 3D model courtesy of nacimus (Bathroom and Foggy Bathroom), SlykDrako (Bedroom), cekuhnen (Coffee Machine), and UP3D (Lamp).

CCS Concepts: • **Computing methodologies** → **Ray tracing**.

Additional Key Words and Phrases: Monte Carlo rendering, global illumination, variance reduction, Russian roulette, image-space techniques

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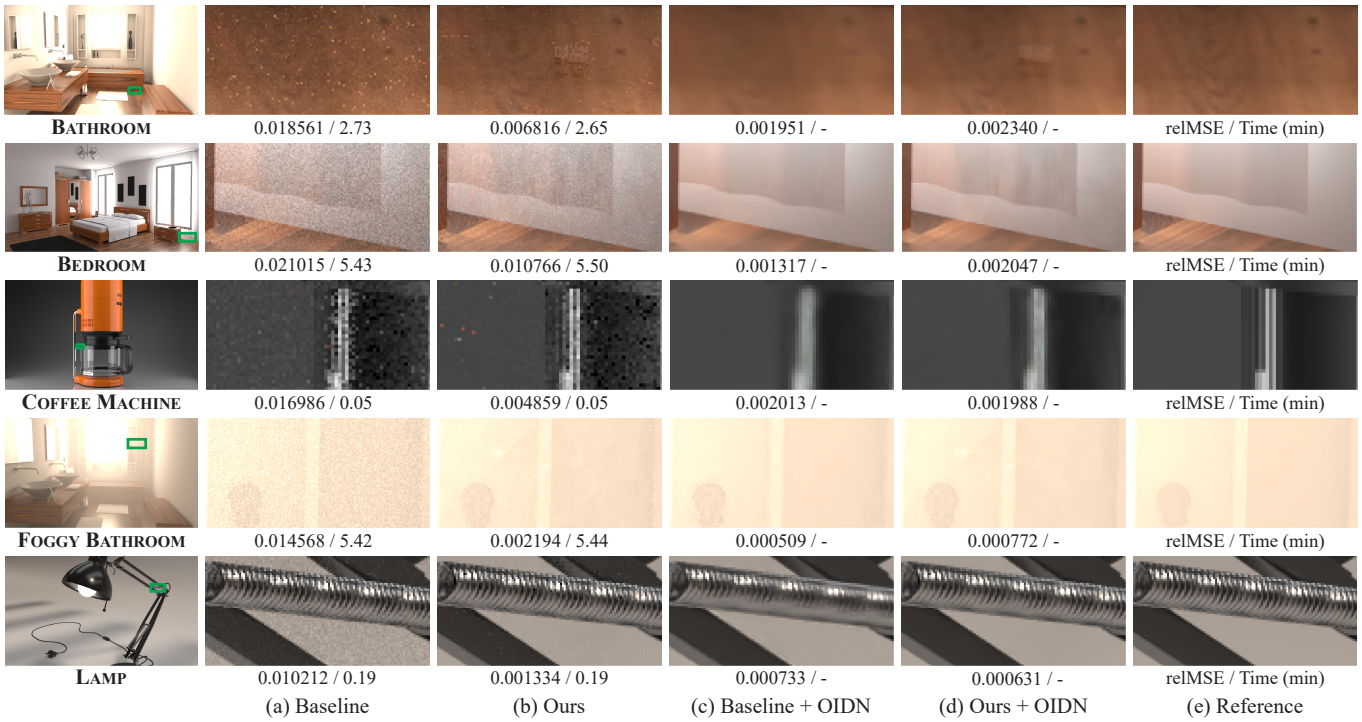

Fig. 2. Comparisons of baseline PT and our method before and after applying pretrained OIDN. Each scene uses approximately one quarter of its time budget in Fig. 1. Ours + OIDN yields lower relMSE than PT + OIDN for the Coffee Machine and Lamp scenes, but higher relMSE for the Bathroom, Bedroom, and Foggy Bathroom scenes. This reduced benefit after denoising arises because OIDN suppresses the independent noise of baseline PT more effectively than the correlated noise produced by our method. 3D model courtesy of nacimus (Bathroom and Foggy Bathroom), SlykDrako (Bedroom), cekuhnen (Coffee Machine), and UP3D (Lamp).