Base application

Noise image

Downsampled frames

Low resolution Intermediate $\hat{\mathbf{I}}_1^{1/2}$

Input frames $\mathbf{I}_0, \mathbf{I}_2$

Patch-based cascade

Patchify

Denoise patches

Accumulate patches

Upsampled $\hat{\mathbf{I}}_1^{1/2}$

Input frames $\mathbf{I}_0, \mathbf{I}_2$

Noisy input $\boldsymbol{z}_t$

Patch of $\mathbf{I}_0, \mathbf{I}_2, \mathrm{up}(\hat{\mathbf{I}}_1^{1/2})$

Denoised patch

Denoised prediction $\hat{\mathbf{I}}_1$