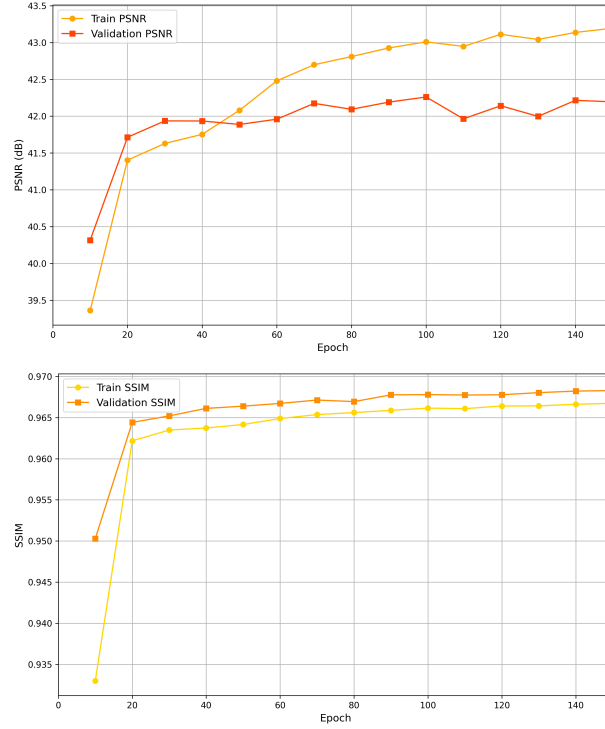# DenoMamba: A fused state-space model for low-dose CT denoising

Şaban Öztürk, Oğuz Can Duran, and Tolga Çukur

Supp. Fig. 1: Training and validation performance of DenoMamba across training epochs. PSNR (top) and SSIM (bottom) metrics are plotted for the 25%-dose AAPM dataset. Training and validation curves consistently indicate stable convergence without signs of overfitting.
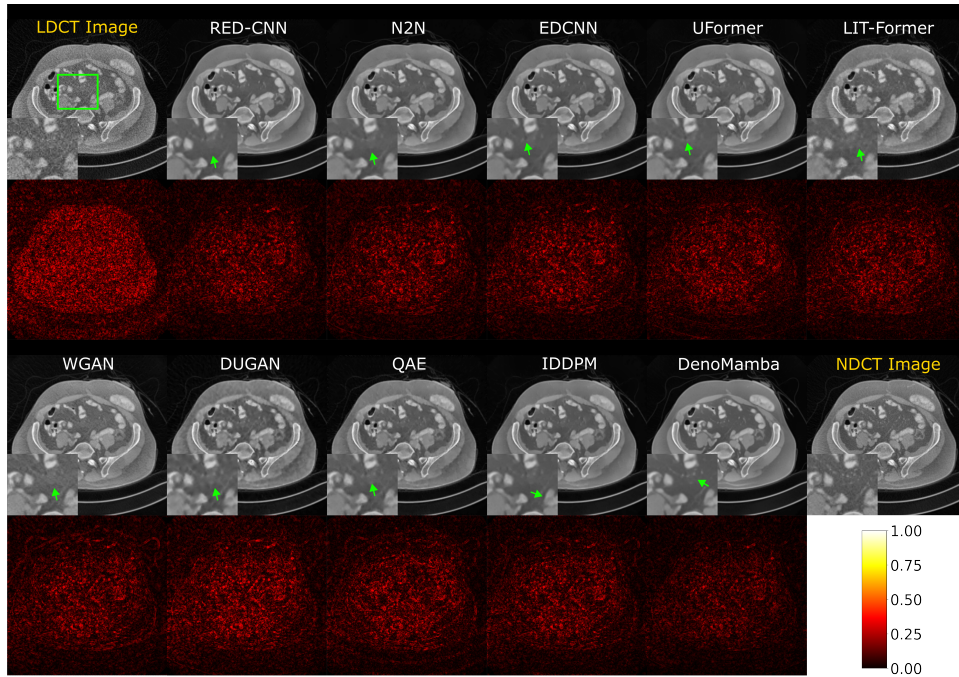
Supp. Fig. 2: Denoising results from the 10%-dose AAPM dataset are depicted for a representative cross-section. Error maps highlight absolute pixel-wise differences between the denoised and NDCT images. Error levels are visualized using the heatmap scale (0–1), where brighter colors indicate regions of larger reconstruction errors. DenoMamba achieves lower reconstruction errors compared to baselines.
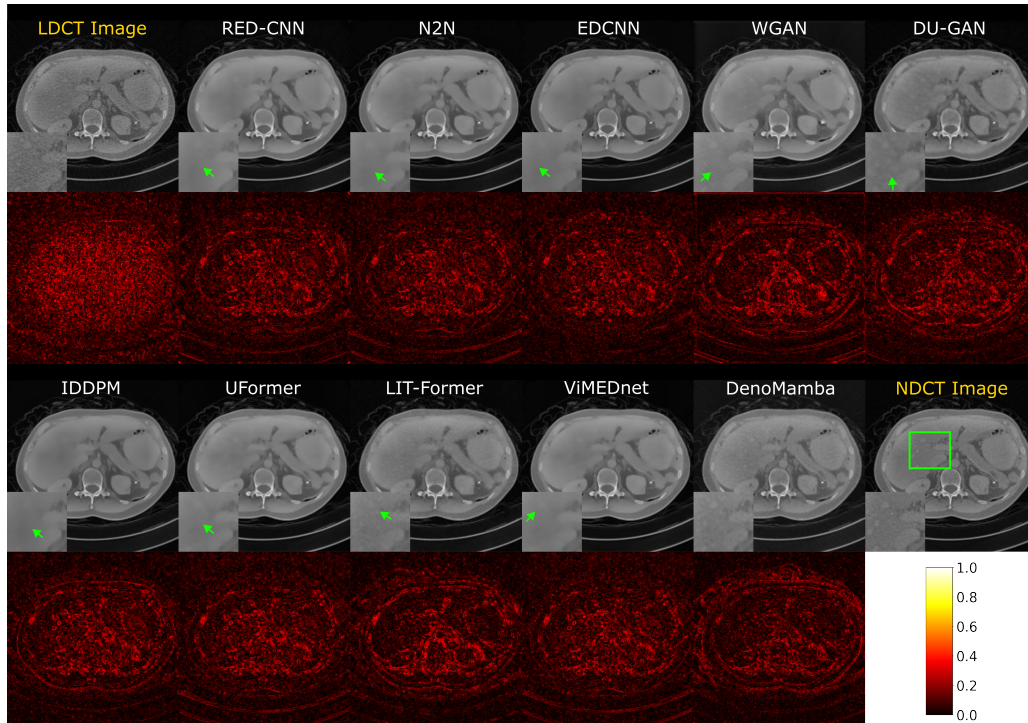
Supp. Fig. 3: Generalization across dose levels for the AAPM dataset. Models trained on 25%-dose scans were evaluated on 10%-dose scans. Error maps highlight absolute pixel-wise differences between the denoised and NDCT images. Error levels are visualized using the heatmap scale (0–1), where brighter colors indicate regions of larger reconstruction errors. DenoMamba achieves lower reconstruction errors compared to baselines.
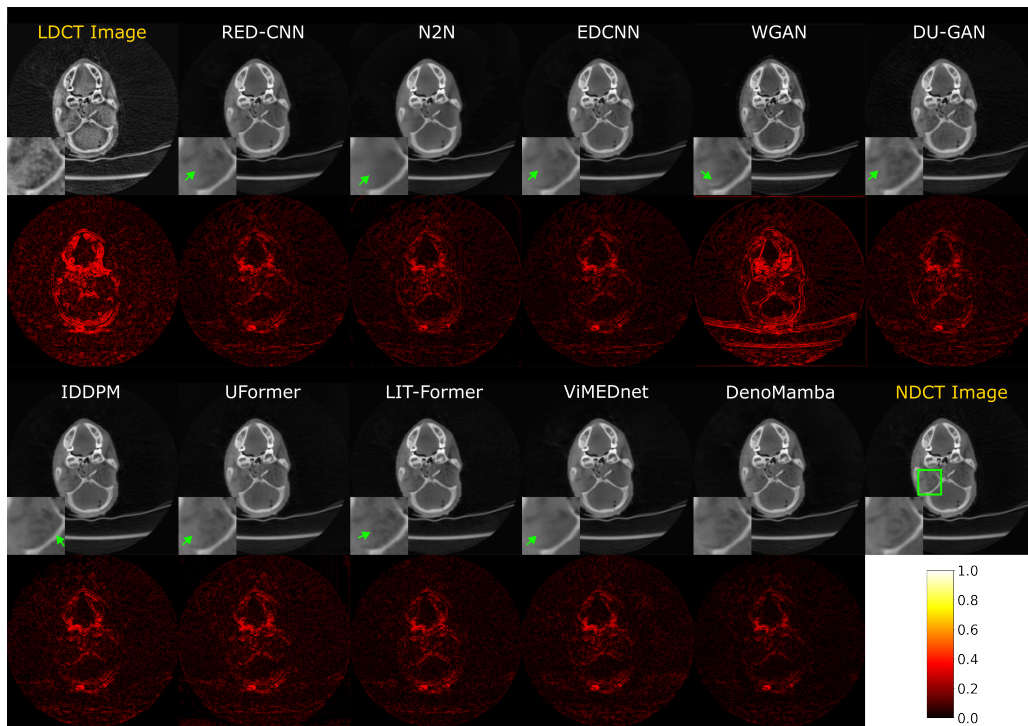
Supp. Fig. 4: Validation experiment on an external dataset. Models trained on the 25%-dose AAPM dataset were evaluated on the 10%-dose Piglet CT dataset. Error maps highlight absolute pixel-wise differences between the denoised and NDCT images. Error levels are visualized using the heatmap scale (0–1), where brighter colors indicate regions of larger reconstruction errors. DenoMamba achieves lower reconstruction errors compared to baselines.