

Figure 8: Evaluation of latent diffusion models (LDMs) on image inpainting using SeeTrue dataset. Top: The uncertainty-perception plane reveals the tradeoff between model uncertainty and perceptual quality, as measured by state-of-the-art non-reference metrics LIQE and Q-ALIGN (higher is better). Bottom: The uncertainty-distortion plane illustrates the relationship between model uncertainty and distortion, as measured by PSNR and SSIM. These results are consistent with previous findings, showing that no model simultaneously achieves both high perceptual quality and low uncertainty. Moreover, in general, higher uncertainty leads to higher distortion (lower PSNR and SSIM values).

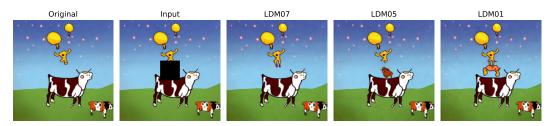


Figure 9: Visual comparison of inpainting algorithms on the uncertainty-perception plane. Algorithms are ordered from left to right by increasing perceptual quality, with a corresponding increase in the extent of hallucinations (uncertainty), as clearly evident in the inpainted images.