

Supplementary information to A Spatially Invariant Noise Model for Minimum Noise Fraction (MNF) Denoising of Hyperspectral Datasets: Applications to Large-Scale Infrared Spectroscopic Pathology.

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Savitzky-Golay parameter sweep

iMNF Sensitivity to SG Parameters at 1656 cm⁻¹

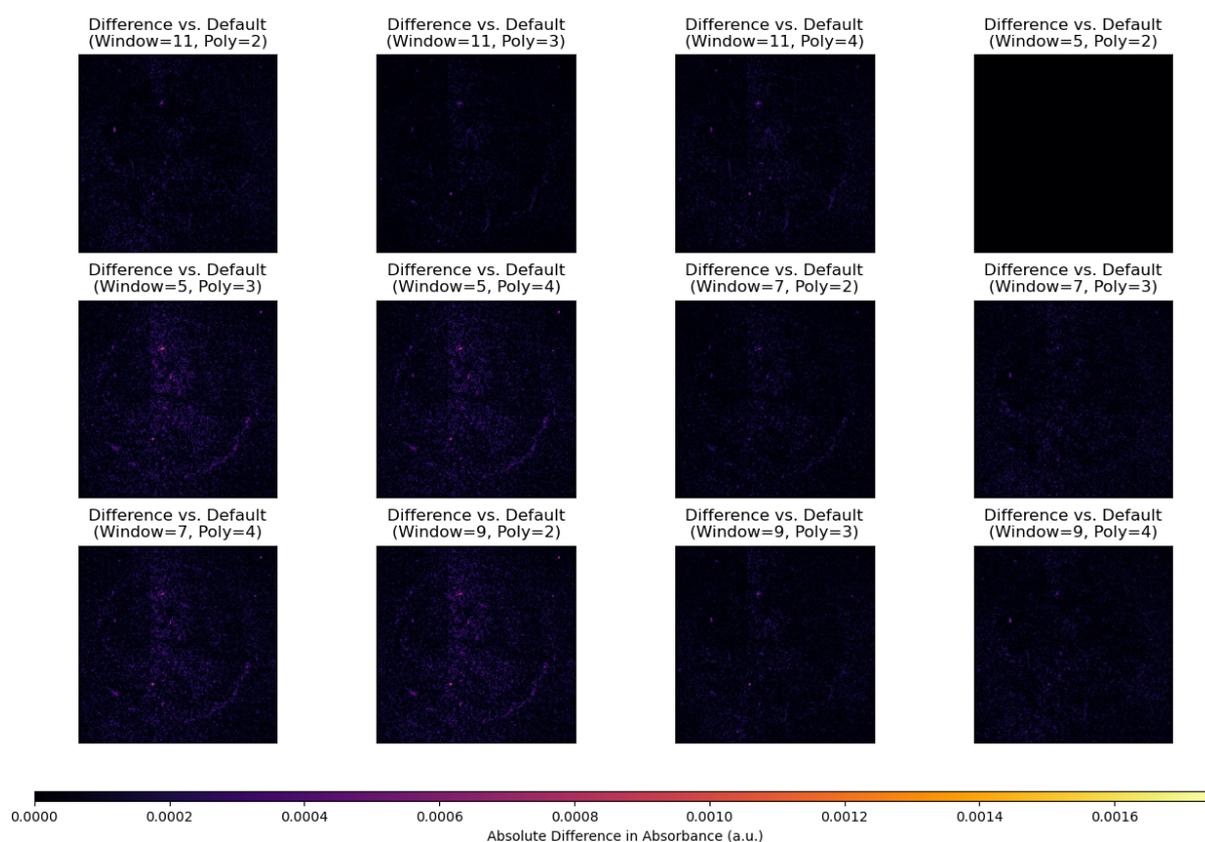


Figure 1 – Pixel-wise absolute difference at the Amide I band (1656 cm⁻¹) for differing Savitzky-Golay (SG) filter parameters for application of the iMNF denoising process. Robustness of the SG parameters is confirmed by the extremely small scale in absolute differences (2x10⁻³).

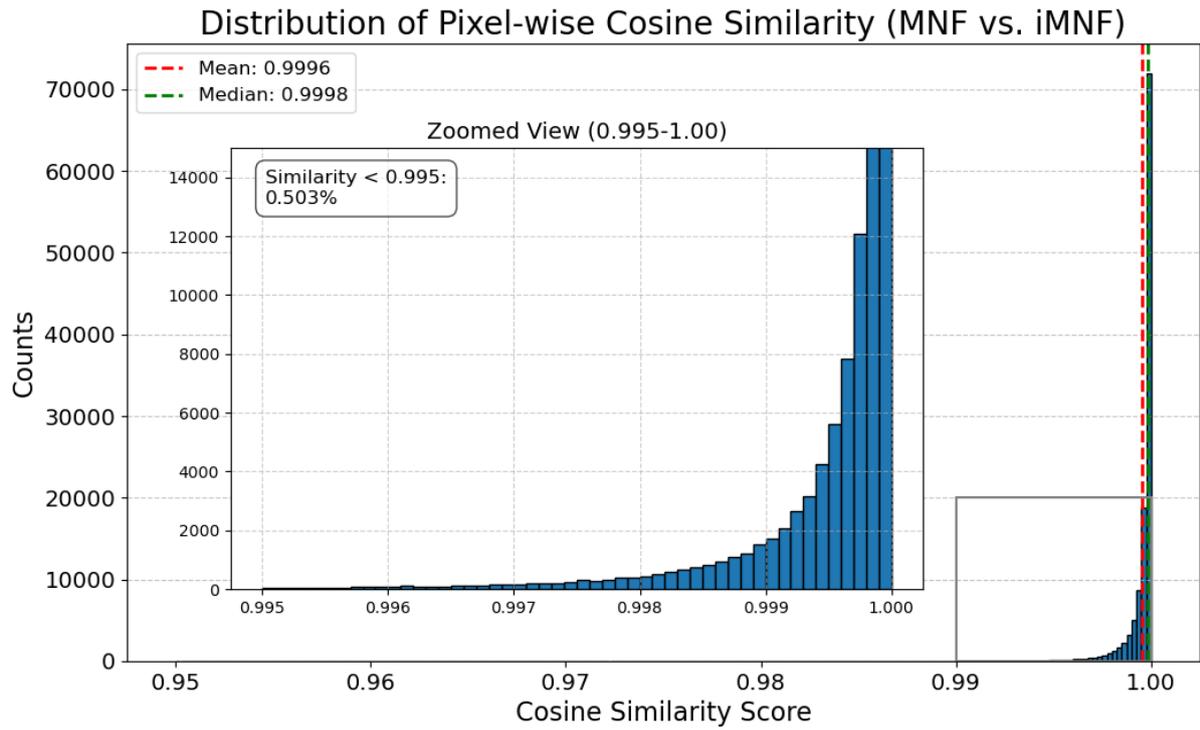


Figure 2 – Distribution of calculate cosine similarities between the denoised datasets from the MNF and iMNF algorithms. The high level of spectral similarity is shown by quantifying the percentage of cosine similarities that fall below a 0.995 value threshold.