Supplementary Materials for Neurally-Guided Structure Inference

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A. CNN Architecture of the Neural Guider for Matrix Decomposition

Table 1 shows the architecture of our CNN-based neural guider for probabilistic matrix decomposition.

Padding, output shape $= [200 \times 200 \times 2]$
3×3 Conv, with stride $= 1$, channels $= 64$, ReLU activation
4×4 Conv, with stride $= 2$, channels $= 64$, ReLU activation
4×4 Conv, with stride $= 2$, channels $= 128$, ReLU activation
Instance normalization
4×4 Conv, with stride $= 2$, channels $= 128$, ReLU activation
4×4 Conv, with stride $= 2$, channels $= 128$, ReLU activation
3×3 Conv, with stride $= 1$, channels $= 128$, ReLU activation
Instance normalization
4×4 Conv, with stride $= 2$, channels $= 256$, ReLU activation
4×4 Conv, with stride $= 2$, channels $= 512$, ReLU activation
3×3 Conv, with stride $= 1$, channels $= 512$, ReLU activation
Flatten
Fully connected + softmax

Table 1. Network architecture of the CNN-based neural guider.

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