| Rank (k) | Frobenius Error | Comment |
|---|---|---|
| 5 | 4713.590 | Large error, coarse approximation |
| 20 | 2126.570 | Balanced quality vs compression |
| 50 | 880.529 | Near-original reconstruction |
| 100 | 164.920 | Very high quality, visually identical to original |

Table 1: Frobenius norm error for different truncation ranks $k$. As $k$ increases, the reconstruction quality improves significantly, approaching the original image for $k = 100$.