

Concept Question 10-20: Why is it possible to reconstruct a real-world image almost perfectly from only a subset of its 2-D DFT values, or a subset of its pixel values?

The ISTA algorithm computes the image whose wavelet transform minimizes the LASSO functional given by Eq. (10.207). Minimizing the LASSO functional produces an image whose wavelet transform is sparse, which is true for many real-world images.