Section 10-18.4 CAT tomography from slices of 2-D DFT using compressed sensing.

Purpose: By the projection-slice theorem, the CAT tomography problem can be reformulated as th reconstruction from a partial subset of DFT values. Yet, using compressed sensing, we can completely reconstruct the Shepp-Logan phantom.

Inputs: The radial slices of the 2-D DFT, the number of radial slices, the shrinkage T of 2-D Haar transform used in ISTA algorithm.

Outputs: The reconstructed Shepp-Logan phantom image.

Program: See link associated with this description.

IST RESULT

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