# Sparse Recovery Methods Hold Promise for Diffuse Optical Tomographic Image Reconstruction

**Matlab Codes\* :** (requires [NIRFAST](http://www.google.com/url?q=http%3A%2F%2Fwww.dartmouth.edu%2F%257Enir%2Fnirfast%2F&sa=D&sntz=1&usg=AFQjCNGy0Qj1Ase3wF2EPCnMRDNOteJ80A))

#Matlab Implementation of Smooth L0 Algorithm for Diffuse Optical Tomography: reconstruct\_cw\_sl0\_v1.m (requires SVD based salsa algorithm: SL0\_v1.m\*\*)

#Matlab Implementation of LP Algorithm for Diffuse Optical Tomography: reconstruct\_cw\_Lp\_v1.m (requires Lp-synthesis code LpSynthesis.m\*\*\*\*)

This Matlab code is used as part of the work presented in:

[Jaya Prakash\*\*\*, Calvin B. Shaw\*\*\*], M. Rakesh, K. Rajan, and Phaneendra K. Yalavarthy, “Sparse Recovery Methods Hold Promise for Diffuse Optical Tomographic Image Reconstruction," IEEE Journal of Selected Topics in Quantum Electronics (Issue on biophotonics) 20(2), 6800609 (2014).

Created on: June 3, 2013

\* The code does not come with any guarantees and can be freely used for any purpose.

\*\* Adapted from Smooth L0 Code ([Version: 1](http://www.google.com/url?q=http%3A%2F%2Fee.sharif.edu%2F%257ESLzero%2F&sa=D&sntz=1&usg=AFQjCNGq9WqIa8NELVVSY06hmMVMlGY09A))

\*\*\* Equal Contribution

\*\*\*\* Adapted from [Non-Convex Analysis and Synthesis Priors](http://www.google.com/url?q=http%3A%2F%2Fwww.mathworks.in%2Fmatlabcentral%2Ffileexchange%2F27087-non-convex-analysis-and-synthesis-priors%2Fcontent%2FLp%2FLpSynthesis.m&sa=D&sntz=1&usg=AFQjCNHVUnDbpijNaY5WnCd8bKdqHNHoEw)