An Efficient Gradient-Free Simplex Method for Image-Guided Diffuse Optical Tomography

An Efficient Gradient-Free Simplex Method for Image-Guided Diffuse Optical Tomography

**Matlab Codes\* :** (Requires [Nirfast-7.1](http://www.google.com/url?q=http%3A%2F%2Fwww.dartmouth.edu%2F%257Enir%2Fnirfast%2F%23&sa=D&sntz=1&usg=AFQjCNHbmG8QbVuuFv-HmIKdv-3yG5TPPg)):

#Program for hard priors image reconstruction:- reconstruct\_stnd\_cw\_region.m

#Program for Nelder-Mead Simplex Algorithm based image reconstruction:-

Main Reconstruction Function: reconstruct\_cw\_Opt\_HardPrior.m

Objective Function: ObjectiveFunction\_Opt\_HardPrior.m

Nelder-Mead Simplex Algorithm: NelderMeadSimplexMethod.m

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

Ravi P. K. Jagannath and Phaneendra K. Yalavarthy, “An Efficient Gradient-Free Simplex Method for Estimation of Optical Properties in Image-Guided Diffuse Optical Tomography," Journal of Biomedical Optics18(3), 030503 (2013).

Created on: Dec 10, 2012

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