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

**Matlab Codes** : ([Requires Nirfast-7.1](http://www.dartmouth.edu/~nir/nirfast/)):

#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).

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