Catherine Higham

University of Glasgow

Catherine.Higham@glasgow.ac.uk

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Higham, C. F., Johnson, S., Radwell, N., Padgett, M. J. and Murray-Smith, R.,

Efficient Bayesian Deep Inversion, Journal of Computational Dynamics, (2023)

The contents of this data repository are organised as follows:

A demonstration of GLL depth prediction is provided in 'demo240104.m' and a summary plot of the prepared results in 'quickSummaryPlot.m'.

Requirements: MATLAB Deep Learning Toolbox.

Folder /Transfer1019/

Contains raw RGB, Kinect and LiDAR data (17 indoor scenes) relating to the green light laser experiment described in Section 2 and Figure 1 in the paper.

Folder/Code/

Contains MATLAB code to read the raw data (HybridLidarDataReader240104.m) and prepare for depth prediction ('demo240104.m') using the trained neural network ('gen2020_1115_40_v4.mat').

Folder/Results/

Contains depth prediction and psnr results for GLL ('imdb240103.mat') and RGBonly ('rgbonly.mat') methods. The results for the RGBonly method were obtained using code available at https://cs.nyu.edu/~silberman/datasets/nyu_depth_v2.html. Refer to 'contents.m' for a description of the contents of these files.

Folder/Summaryplot/

Contains code to reproduce Figure 7 in the paper.