

False-Match Symmetry: Data Files and Simulation Code

for

Ng, C. J. & Farell, B. (2019). Solving the stereo correspondence problem with false matches. *PLOS ONE* 14(7): e0219052. <https://doi.org/10.1371/journal.pone.0219052>

can be found at

<https://zenodo.org/record/3334347>

The Zenodo record provides data from random-dot stereograms for solving the binocular correspondence problem through false-match symmetry. It consists of two parts, Data and Algorithm Demo:

False-Match Symmetry Data

Data for four surface conditions used in the PLoS One article have been saved as MATLAB® files. The file ‘Data_Instructions.pdf’ tells how to use the MATLAB® command ‘load’ to make these data available. These data and those used for other surface conditions discussed in the article can be generated afresh using the MATLAB® program contained in the Algorithm Demo by following the directions found in Demo_Instructions.pdf, discussed next...

False-Match Symmetry Algorithm Demo

You can run a version of the MATLAB® program implementing the algorithm used in the article. This program finds candidate true matches consistent with false-match symmetry within the Keplerian array of all possible matches. It accepts binary or grayscale binocular input.

Included within the demo archive are MATLAB® files, instructions, and the binocular random-dot patterns used in generating the data reported in the article. These patterns are contained in .mat files and named according to surface type. The types include examples of frontoparallel and slanted surfaces with and without intensity noise added. Ground truth is also provided for these patterns. Directions for use can be found in Demo_Instructions.pdf.

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