ENGN 2560

Lab #05 3D Correspondences from Stereo Vision

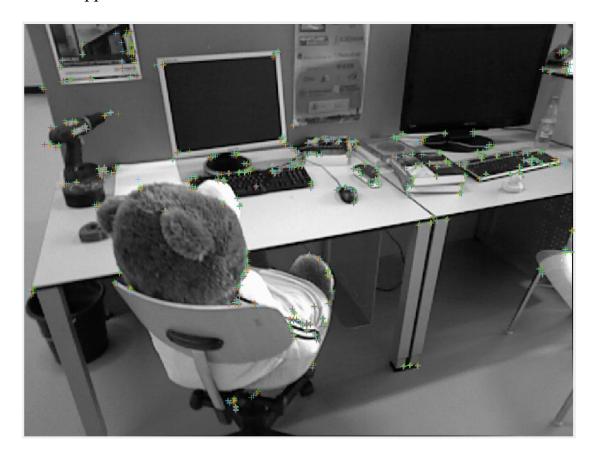### Zhuo Wang

Problem 1. Multi-Resolution Optical Flow

The code for this result is in "P1_main.m" file.

1. By visual inspection, are all the corner features flowing to their correct positions from the first image to the last image? If not, what factors do you think might contribute to the problem?

Yes, they're all flowing to right positions.

2. Reduce the number of levels in your image pyramid to 1, i.e. we do not do a coarse-to-fine approach but enforce the optical flow to work on the original image directly. Run your code again and visualize the results.
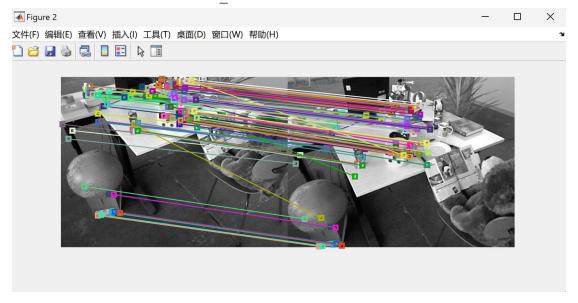
Which approach is better?

The number of levels in image pyramid to 2 is better.

Problem 2. Stereo Matching Based on Inverse Depths

The code for this result is in "P2_main.m" file.

Problem 3. Stereo Matching Based on Epipolar Geometry

The code for this result is in "P3_main.m" file.