ENGN 2560

Lab #02 Feature Correspondences, Camera Relative Pose, and RANSAC

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Problem 1. Camera Calibration from a Cube of Checkerboard

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

```
命令行窗口
  R1 with T1 reprojection error:
      7.8915e+03

  R1 with T2 reprojection error:
      9.1892e+03

  R2 with T1 reprojection error:
      8.5634e+03

  R2 with T2 reprojection error:
      8.5271e+03


  R1 and T1 is a veridical camera extrinsic matrix
fx >>
```
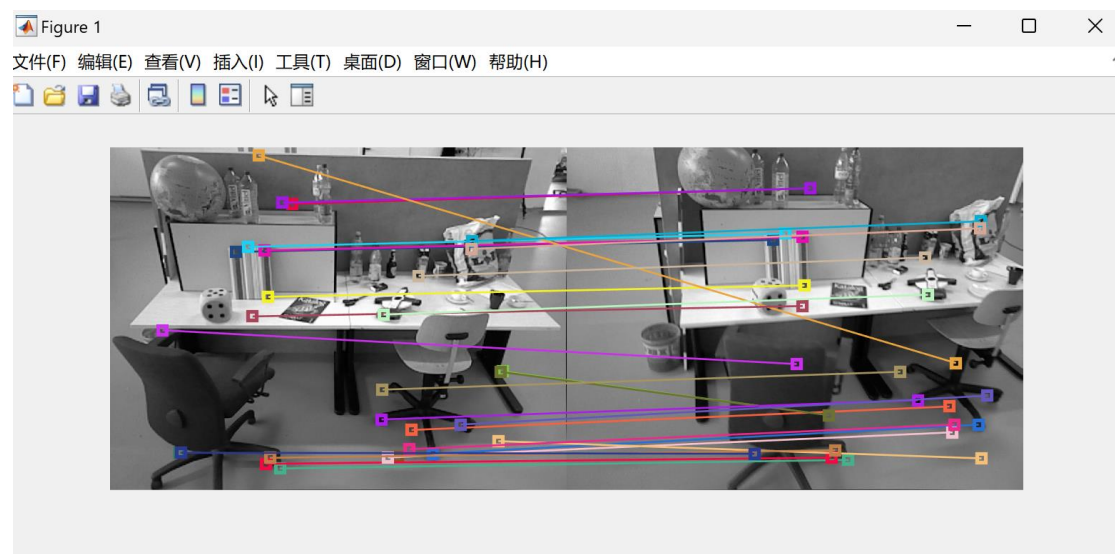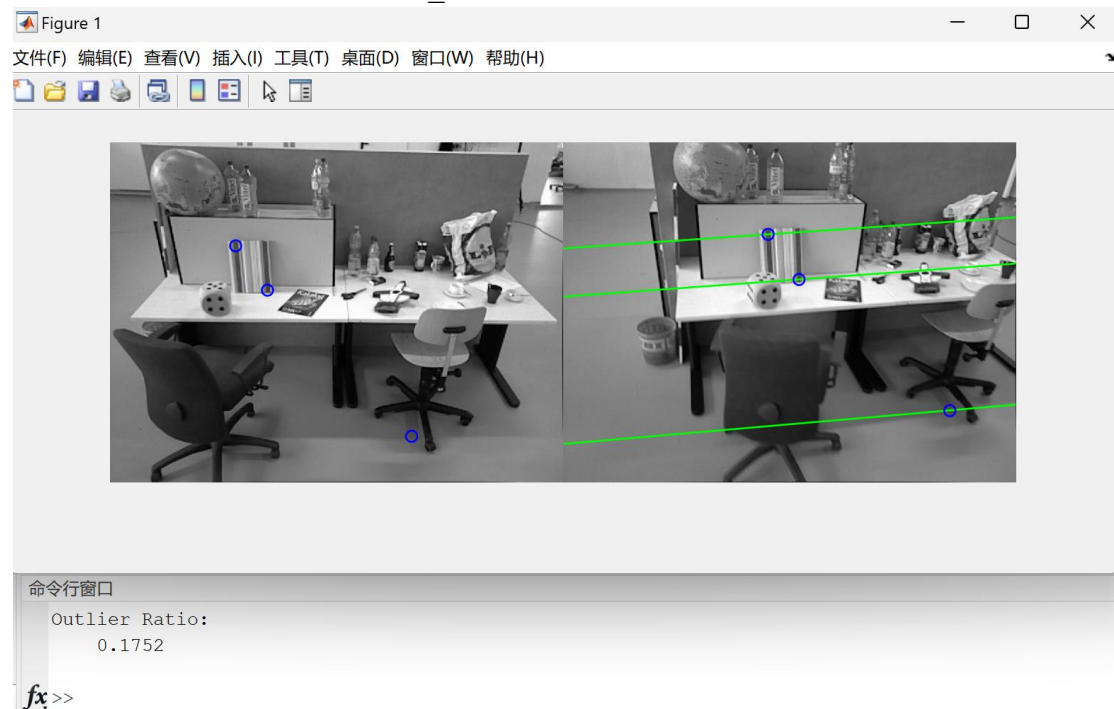
Problem 2. Feature Correspondences and Rank-Ordered List

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

Problem 3. Measure Outlier Ratio from Known Relative Camera Pose

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


```
命令行窗口
  Outlier Ratio:
      0.1752
fx >>
```

Problem 4. Estimate Relative Pose Under a RANSAC Scheme

The code for this result is in "P4&5_main.m" file.

```
命令行窗口
  Veridical R and T are R2 and T1
  rotation_error:
      3.1416

  translation_error:
      0.9963
fx >>
```

Problem 5. Evaluate Relative Pose Estimation

The code for this result is in "P4&5_main.m" file.

命令行窗口

Veridical R and T are R2 and T1
rotation_error:
    3.1416

translation_error:
    0.9963

fx >>