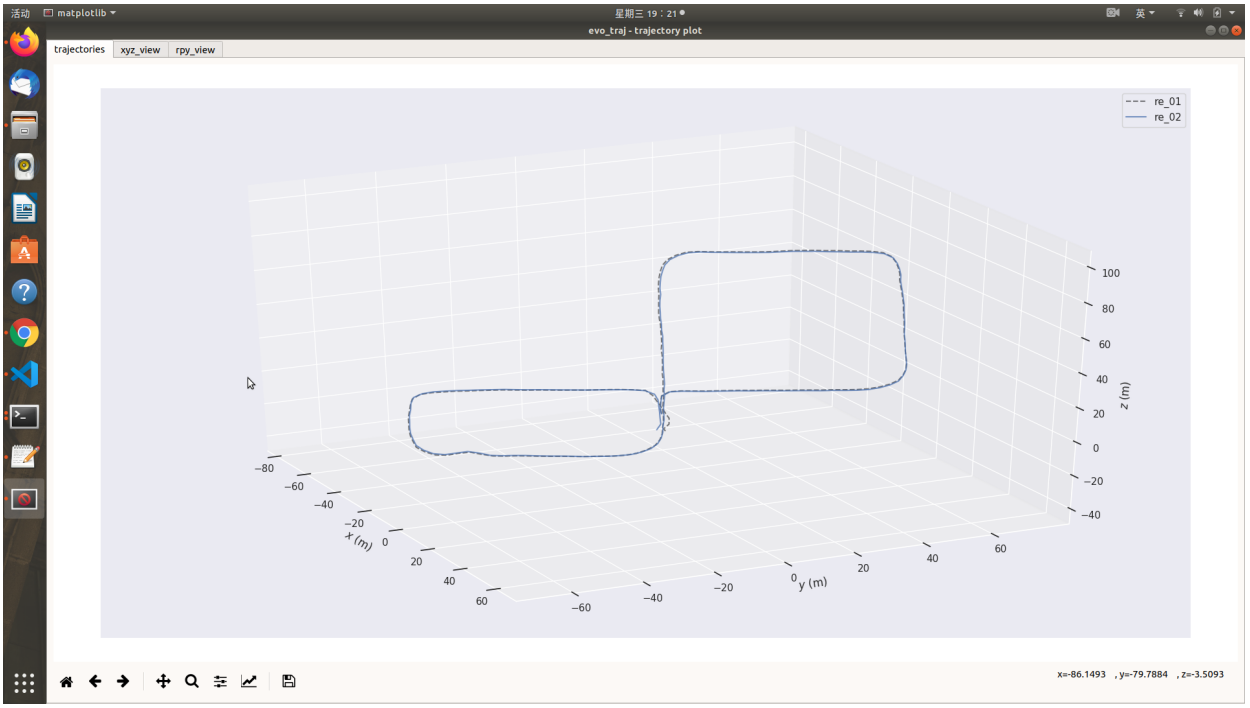
Qing-LOAM测评

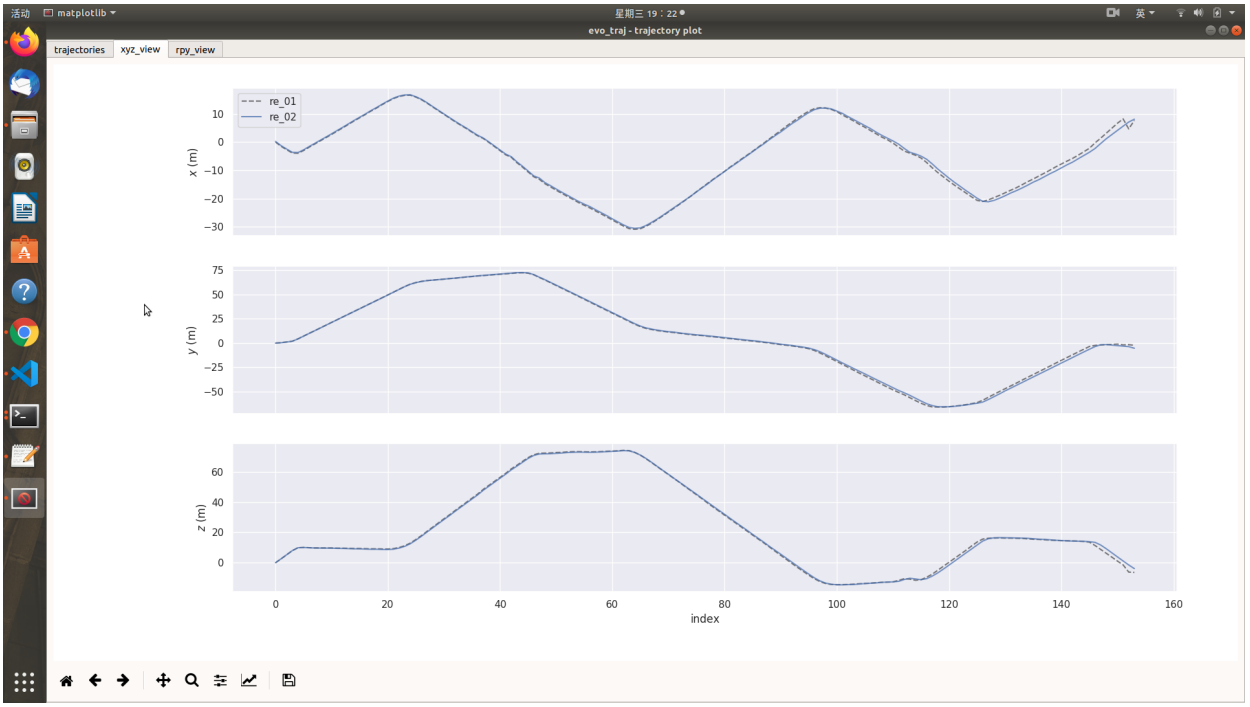
本文利用自主研发的Qing-LOAM SLAM算法对实际环境进行实时建图。并使用evo测评工具对于本算法开启闭环优化和未开启闭环优化所构建的地图进行测评。将未闭环进行建图的里程计数据保存为re_01.txt,将开启闭环进行建图时的里程计数据保存为re_02.txt。

轨迹测评

```
evo_taj kitti re_02.txt --ref re_01.txt -a -s -p --plot_mode xyz
```

轨迹对比结果如下：



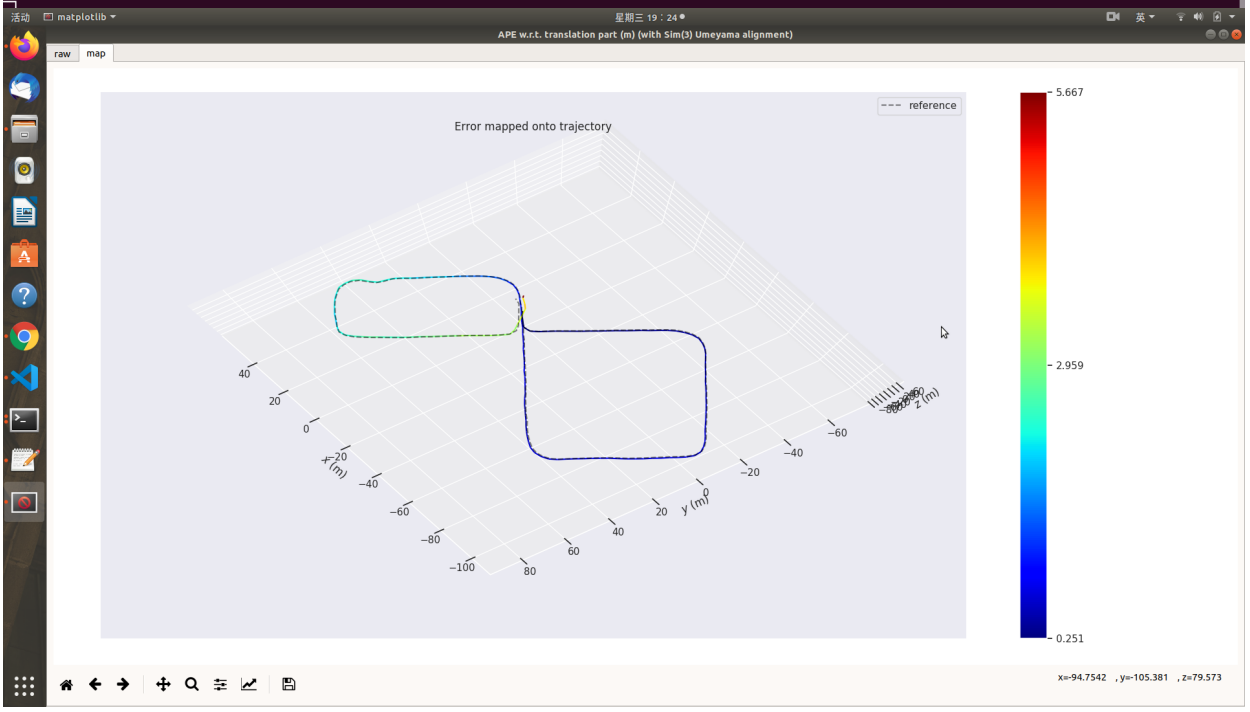


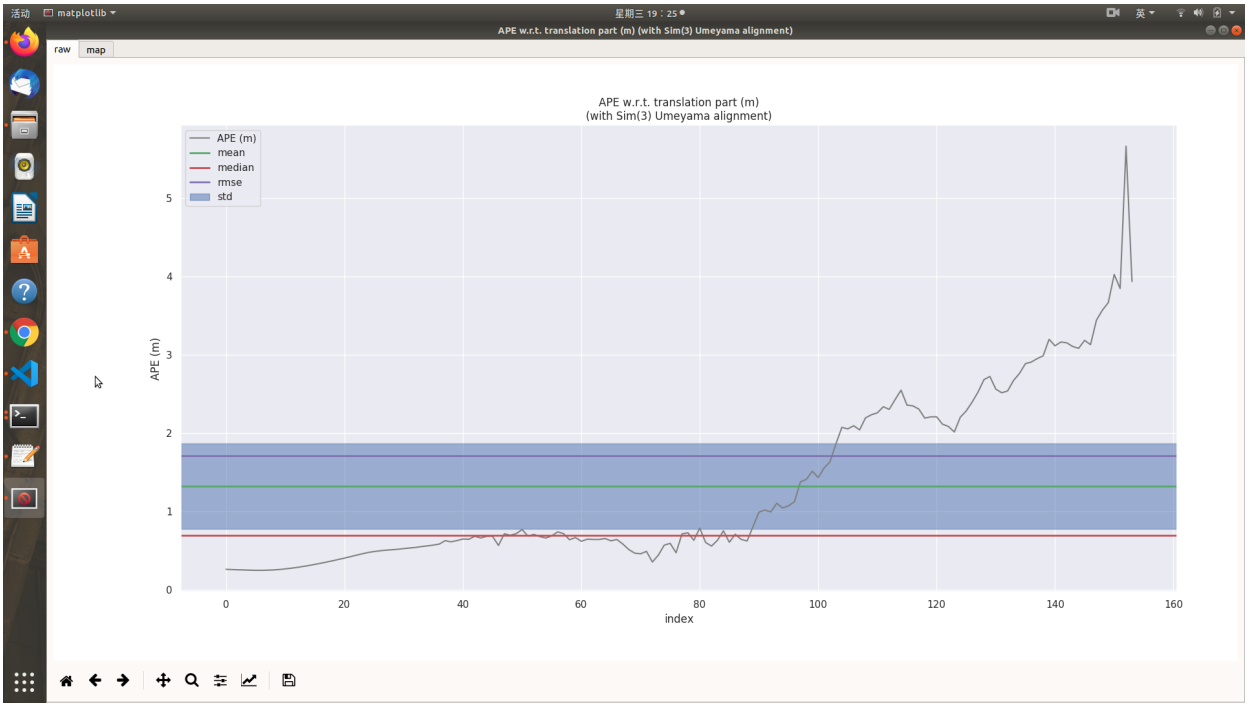
轨迹评估

绝对位姿误差：

```
aidam@aidam-ThinkPad-P52:~/Downloads/Q_demo$ evo_ape kitti re_02.txt re_01.txt -a -s -p --plot_mode x
yz
APE w.r.t. translation part (m)
(with Sim(3) Umeyama alignment)

       max      5.667159
      mean      1.324608
    median      0.695222
       min      0.251156
      rmse      1.716486
       sse      453.733865
       std      1.091667
```

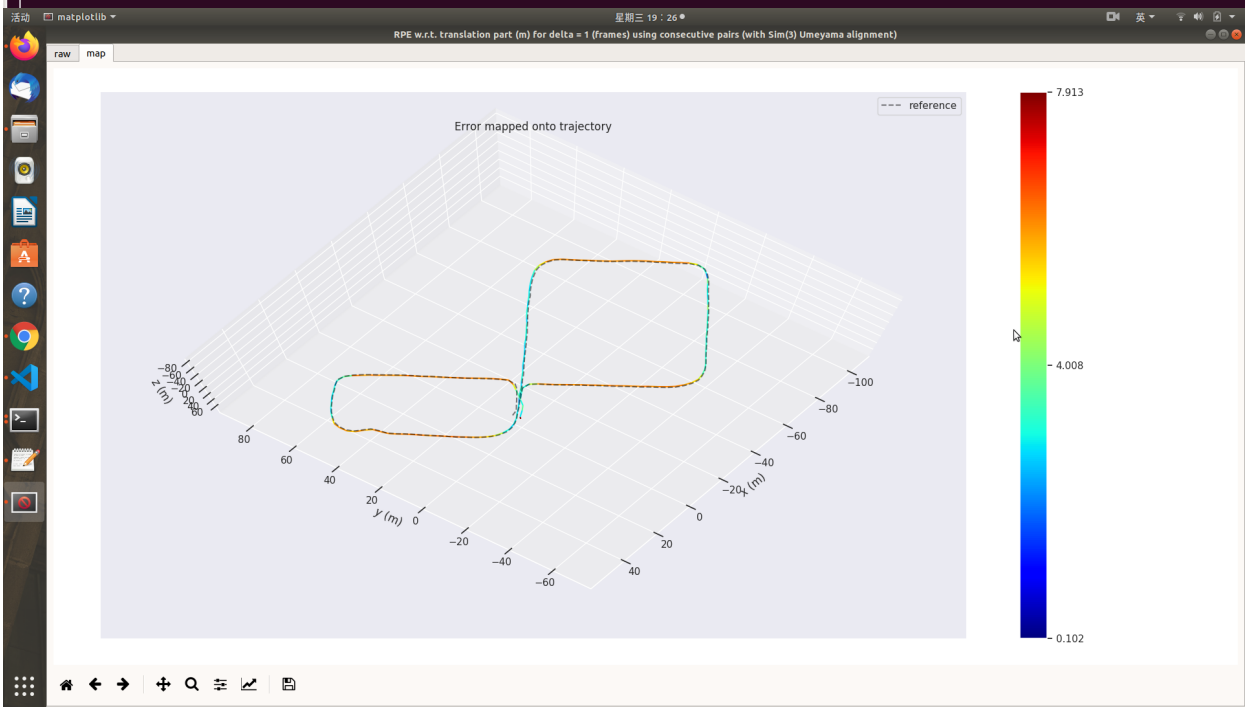




相对位姿误差：

```
aidam@aidam-ThinkPad-P52:~/Downloads/Q_demo$ evo_rpe kitti re_02.txt re_01.txt -a -s -p --plot_mode x
yz
RPE w.r.t. translation part (m)
for delta = 1 (frames) using consecutive pairs
(with Sim(3) Umeyama alignment)

       max      7.912799
      mean      4.609184
    median      5.289006
       min      0.102458
      rmse      4.852048
       sse      3601.982628
       std      1.515846
```




活动
matplotlib
星期三 19：26
RPE w.r.t. translation part (m) for delta = 1 (frames) using consecutive pairs (with Sim(3) Umeyama alignment)
raw
map
RPE w.r.t. translation part (m)
for delta = 1 (frames) using consecutive pairs
(with Sim(3) Umeyama alignment)
RPE (m)
mean
median
rmse
std
RPE (m)
index
0
20
40
60
80
100
120
140
1
2
3
4
5
6
7
8
x=117.315
y=8.00282