SC-LiDAR-SLAM: a Front-end Agnostic Versatile LiDAR SLAM System

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Summary

1. LiDAR SLAM open source project: Ready-to-use open source projects (C++, Python).
2. Various LiDAR odometry algorithms are supported (e.g., LeGO-LOAM, LIO-SAM, A-LOAM, FAST-LIO)
4. Utility and useful applications such as dynamic point removal, long-term point cloud mapping.

Method

- What is SLAM?
  SLAM = Odometry + Place Recognition + Pose-graph optimization

- SC-LiDAR-SLAM fully integrates above modules for a complete LiDAR SLAM system for accurate 3D urban mapping.

Results

- Dynamic point removal [2]

Applications

- Multi-session Mapping [3]
- Radar SLAM

Datasets: ↑ KITTI 05, ↓ (left) MulRan - Riverside, ↓ (right) MulRan - KAIST