

Quality Assurance of Backpack- and Trolley-based Mobile Laser Scanning System

Background and state-of-the-art

- Current solutions for quality assurance of mobile laser scanning systems (MLS) rely on manual work
- Backpack- and Trolley-based systems rely on different SLAM solutions leading to locally varying uncertainty
- Meaningful quality metrics and strategies for MLS are still not mature

Research questions

- How to effectively evaluate the quality of point clouds derived from MLS?
- How to purposefully increase the accuracy of point cloud of MLS?

Research methods

- Improvement of plane-based accuracy assessment method
- Analysis of different plane setups and scanning strategies
- Transfer and optimize the solutions of quality enhancement from TLS to MLS

