Chair of Engineering Geodesy
TUM School of Engineering and Design
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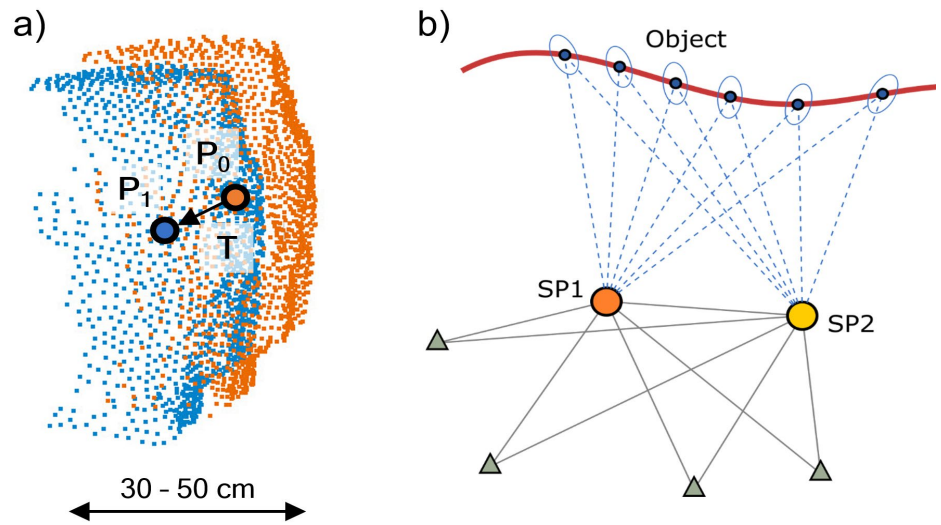
Integrating point clouds into point-based deformation analysis at geo-monitoring

Background and state-of-the-art

- Geo-monitoring demand precise localization and quantification of deformations in challenging environments
- Terrestrial Laser Scanning (TLS) enables contactless measurement with high spatial resolution
- However, only point-based (rigorous) deformation analysis provides comprehensive statistical tests of measurements and results

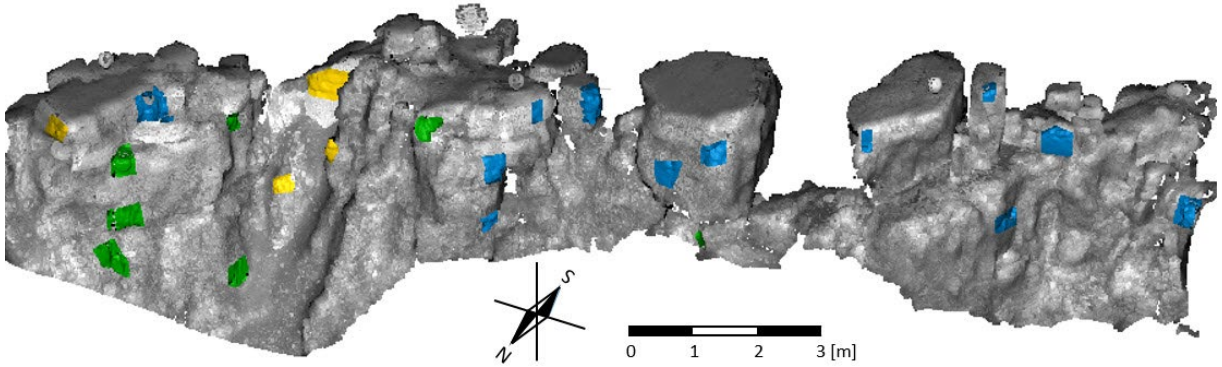


Research questions

- Can point clouds be integrated into rigorous deformation analysis to increase spatial resolution at geo-monitoring applications?
- Does this help to improve network accuracy and geometry?

Research methods

- Small scale laser scan patches and local ICP
- Rigorous deformation analysis



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