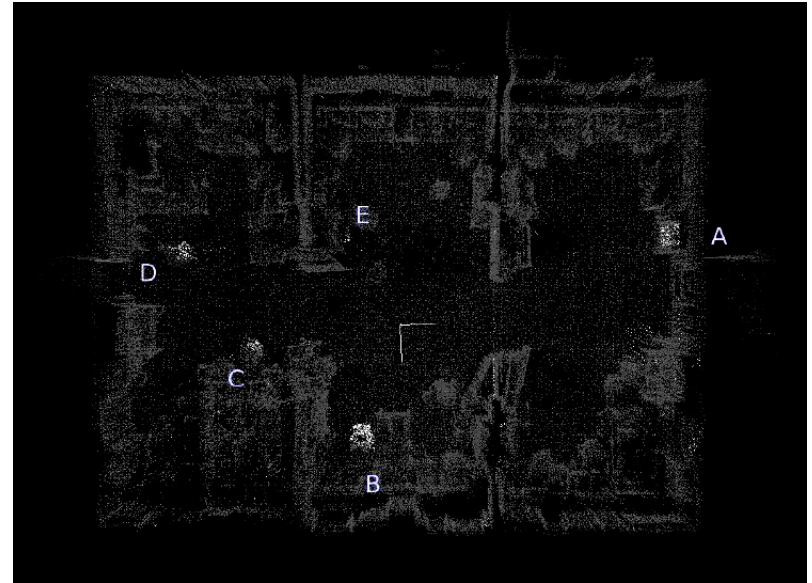


Has Something Changed Here? – Autonomous Difference Detection for Mobile Robots

Henrik Andreasson, Martin Magnusson and Achim Lilienthal
AASS, Örebro University, Sweden

- Detects both spatial and color changes.
- New registration method using SIFT features and laser range values only. No initial pose estimate from odometry required!
- Normal distribution transform (NDT) to represent spatial and color information.
- Successful experimental evaluation in an indoor lab environment.



Difference probability obtained from experimental data (brighter regions indicate higher difference probability).