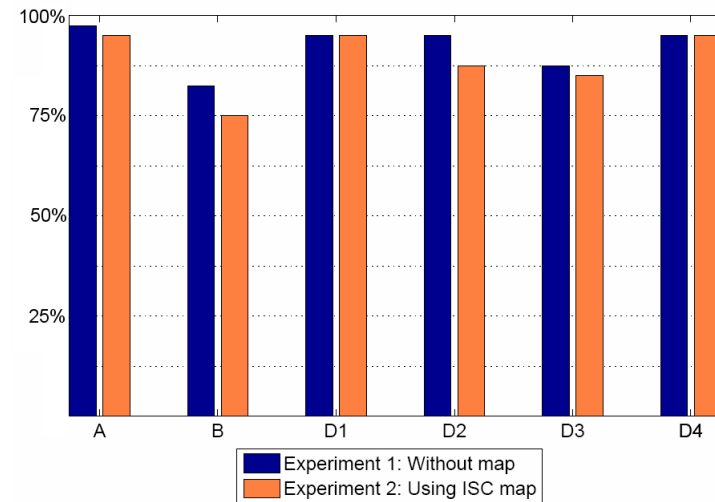


Incremental Spectral Clustering and Seasons: Appearance-Based Localization in Outdoor Environments

Christoffer Valgren and Achim Lilienthal

Centre for Applied Autonomous Sensor Systems, Örebro University, Sweden

- Incremental Spectral Clustering combined with image matching techniques based on SURF
- Appearance-based topological map built incrementally
- Extensive data sets spanning an entire year used to evaluate localization performance
- The method gives very high cross-season localization performance



Cross-season localization results
using our topological map