MSc Defence

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Normalization of Relative Position Descriptors

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Chair: Dr. Stefan Kremer
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Advisory Committee: Dr. David Chiu
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ABSTRACT:

A relative position descriptor (RPD) is a quantitative representation of the position of a spatial object relative to another. RPDs have been used in applications such as scene matching, human-robot interaction, and geospatial information retrieval. RPDs are usually not invariant under geometric transformations (i.e., the RPD changes when a geometric transformation is applied to the objects). However, some RPDs can be normalized and made invariant under these transformations – and this is a desirable property. Here, we review and introduce new normalization methods for well-known RPDs, namely, the force histogram and the φ−descriptor.