Finding correspondences between two images of the same scene, taken from different viewpoints, with semantic features is a challenging problem.

This paper proposes a Data-driven Morphology Salient Regions (DMRS) approach for detecting interest regions repeatedly.

A binarization algorithm gives compact image representation subsequently analyzed for saliency using morphology.

DMSR has comparable performance to the renown MSER detector on structured scenes and better invariance on a high-resolution benchmark.

This is achieved via significantly less detected regions- a much desired property in the big data era.

DMSR is shown to be a better choice than MSER for analysis of scientific imagery, e.g.,

it detects precisely meaningful regions in images used for wild-life biometrics.

An OxFrei dataset for transformation-independent detection evaluation is introduced.