

Summary

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Components of an image registration algorithm

1. Feature selection

- Points, lines, regions, templates
- Accuracy, reliability, and robustness can be computed for feature selectors.

2. Feature correspondence

- Using coherence, clustering, invariance, or template matching
- Reliability and robustness can be computed for correspondence algorithms.

3. Transformation

- Rigid, affine, thin-plate splines, radial-basis functions, weighted mean, weighted linear, piecewise functions
- Accuracy and robustness of transformation functions can be computed.

Expected future research

- Fast algorithms and systems that can register images in almost real-time.
- More robust algorithms for non-rigid registration of multi-modality images.
- More effective means of evaluating the performances of non-rigid image registration algorithms and systems.

Any questions?

Thank you
for coming!