

Keypoint detection with automatic scale selection

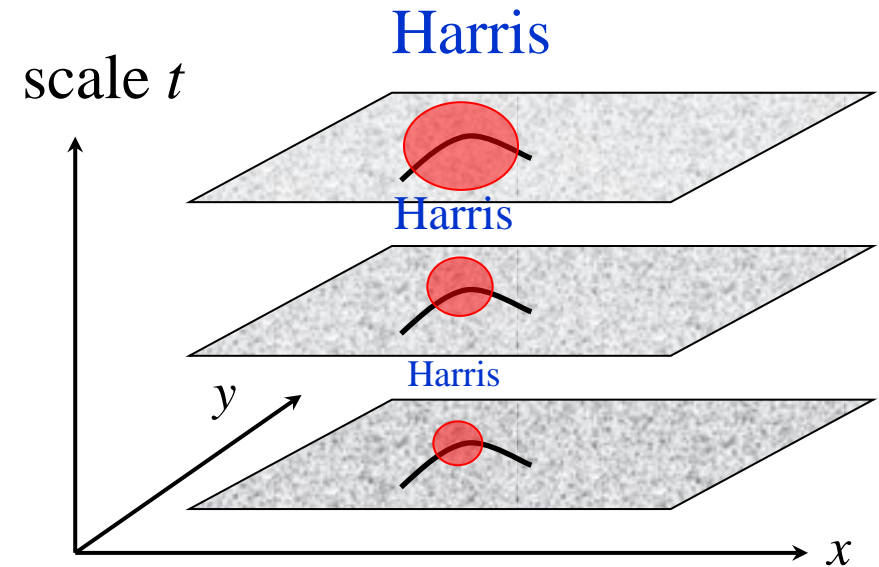
- Scale-space representation provides all scales; which scale is best for keypoint detection?

- *Harris-Laplacian*

1. Detect Harris corners at some initial scale
2. For each Harris corner x_h, y_h detect characteristic scale

$$t_h = \arg \max_t |t \cdot \nabla^2 f^t(x_h, y_h)|$$

3. Apply Harris detector in a spatial neighborhood at scale t_h to refine keypoint location x_h, y_h
4. Repeat 2. and 3. until convergence



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Harris-Laplacian example (150 strongest peaks)



Keypoint detection with automatic scale selection

Harris-Laplacian example (200 strongest peaks)

