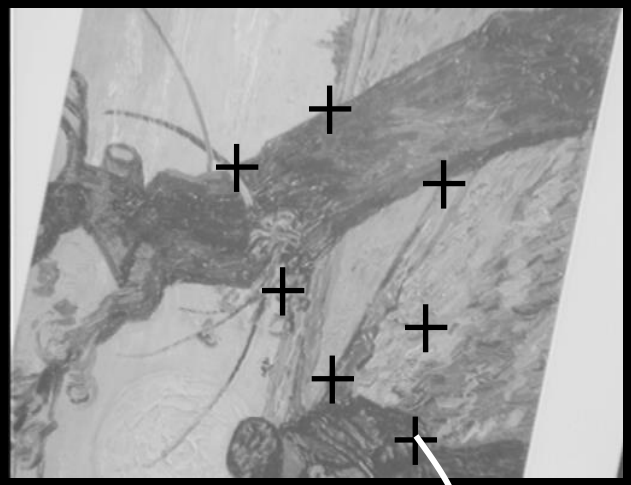
Korešpondencia lokálnych príznakov

?



p

?

=

d

$$sim(\mathbf{p},\mathbf{d}) = \cos(\mathbf{p},\mathbf{d}) = \frac{\mathbf{p}.\mathbf{d}}{\|\mathbf{p}\|\|\mathbf{d}\|}$$

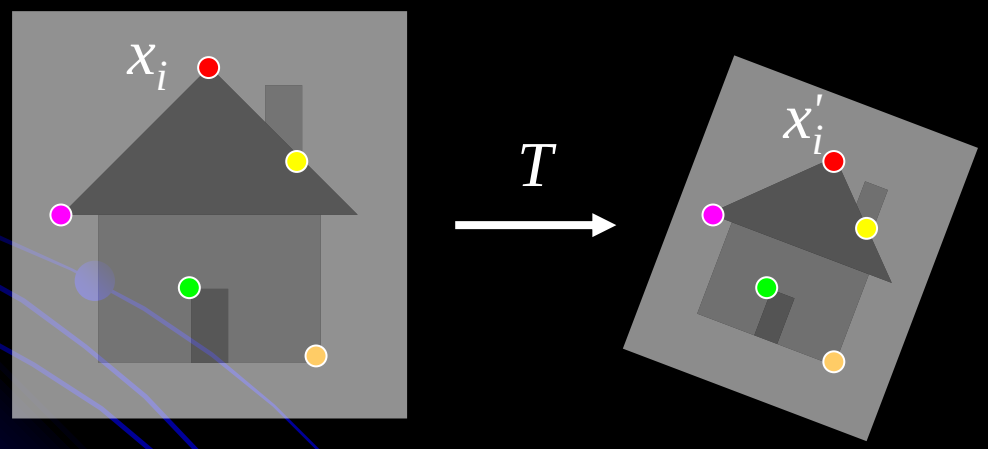
siftDemoV4 - implementácia D. Lowe

```
[image, descrips, locs] = sift('scene.pgm');
showkeys(image, locs);
```

match('scene.pgm','box.pgm');

Hľadáme transformáciu H, ktorá minimalizuje

$$\sum_i \text{residual}(H(x_i), x_i')$$



$$\begin{bmatrix} x_i' \\ y_i' \end{bmatrix} = \begin{bmatrix} m_1 & m_2 \\ m_3 & m_4 \end{bmatrix} \begin{bmatrix} x_i \\ y_i \end{bmatrix} + \begin{bmatrix} t_1 \\ t_2 \end{bmatrix}$$

PV2RANSAC - implementácia P. Kovesi

[H, inliers] = ransacfithomography(x1, x2, t)

x1 - 2xN

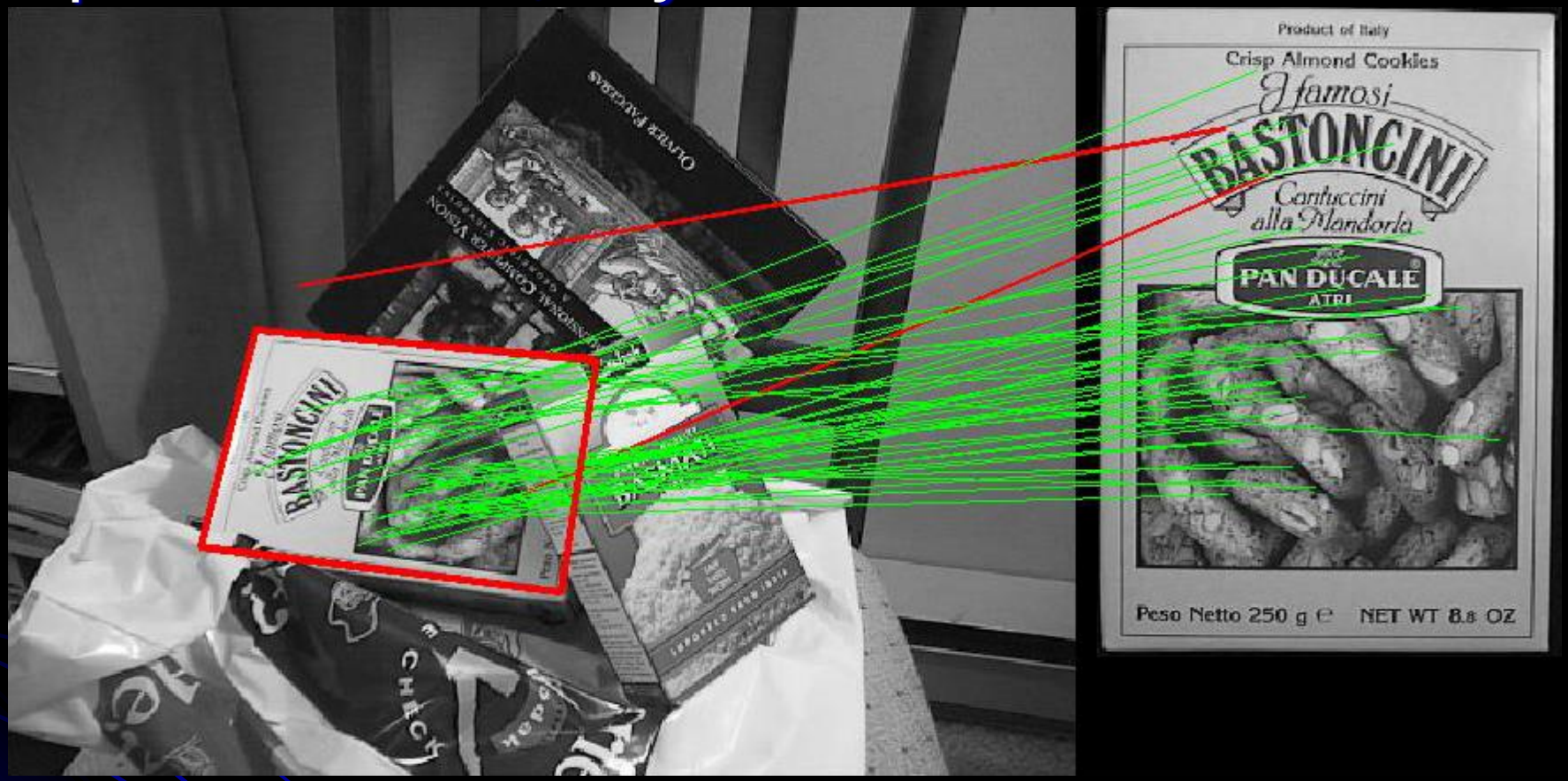
x2 - 2xN

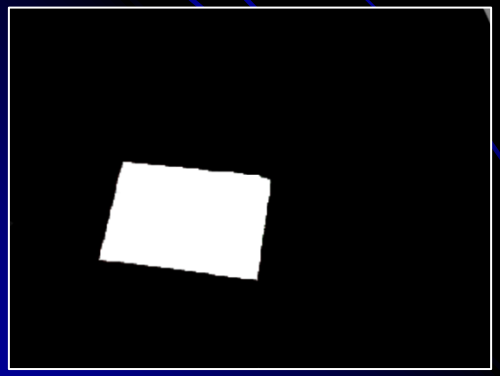
x1<->x2

t - prah (0.001 - 0.01)

x2 = H*x1

Upraviť match, aby volala RANSAC





inliers – vykresliť zelenou

ostatné červenou

vyznačiť okraj objektu