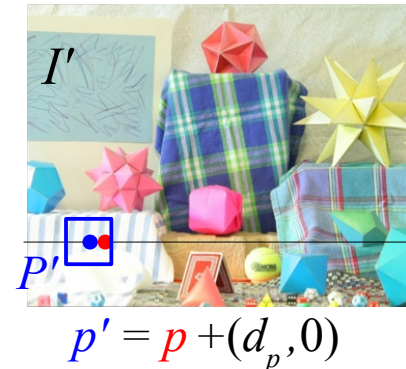


Exercise 2: simple disparity map estimation (without moves nor occlusion)

- Given 2 rectified images I, I' , estimate optimal disparity

$$d(p) = d_p \text{ for pixels } p = (u, v)$$



- Setting: linear multi-label graph construction (cf. pp. 82-93)

- discrete disparities: $d_p \in \mathcal{L} = \{d_{\min}, \dots, d_{\max}\}$

- \mathcal{N}_p : 4 neighbors of pixel p 

- $D_p(d_p) = w_{cc} \rho(E_{ZNCC}(P; (d_p, 0)))$ with $\rho(c) = \begin{cases} 1 & \text{if } c < 0 \\ \sqrt{1-c} & \text{if } c \geq 0 \end{cases}$

- $V_{p,q}(d_p, d_q) = \lambda |d_p - d_q|$

- See material provided for the exercise on web site
(template code and detailed exercise description)

N.B. only w_{cc} / λ matters