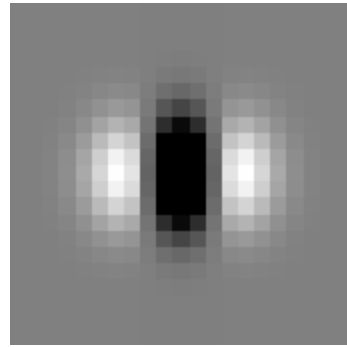
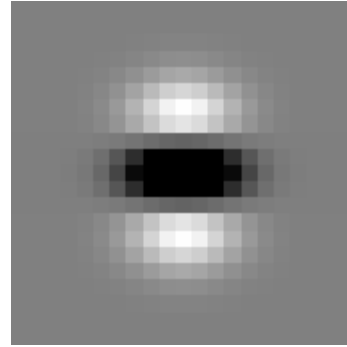


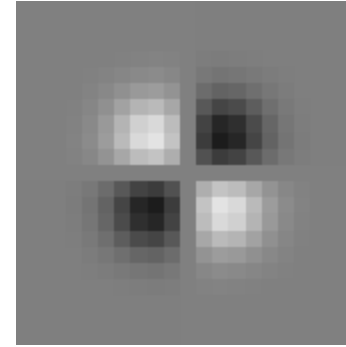
# Determinant of Hessian keypoint detector



$D_{xx}$



$D_{yy}$



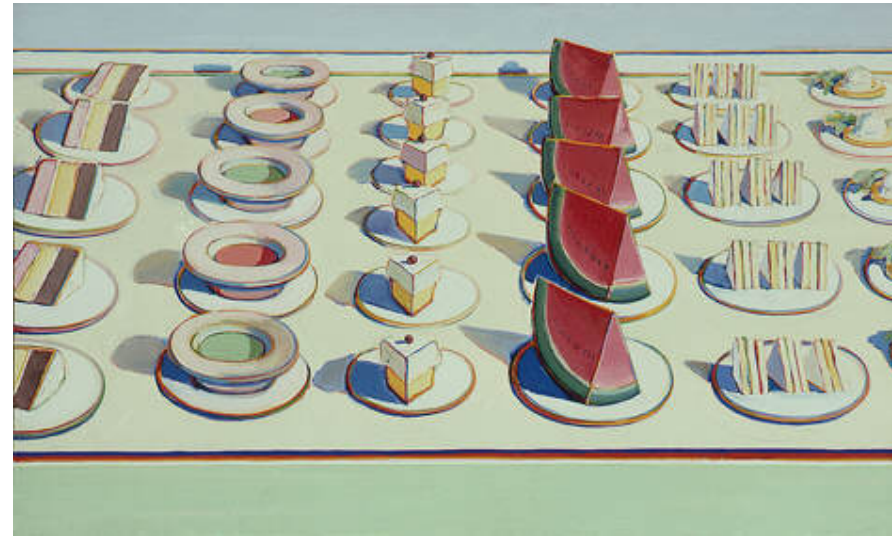
$D_{xy}$

$$\mathbf{H}[x,y] = \begin{bmatrix} f_{xx}[x,y] & f_{xy}[x,y] \\ f_{xy}[x,y] & f_{yy}[x,y] \end{bmatrix}$$
$$= \begin{bmatrix} D_{xx}[x,y] * f[x,y] & D_{xy}[x,y] * f[x,y] \\ D_{xy}[x,y] * f[x,y] & D_{yy}[x,y] * f[x,y] \end{bmatrix}$$

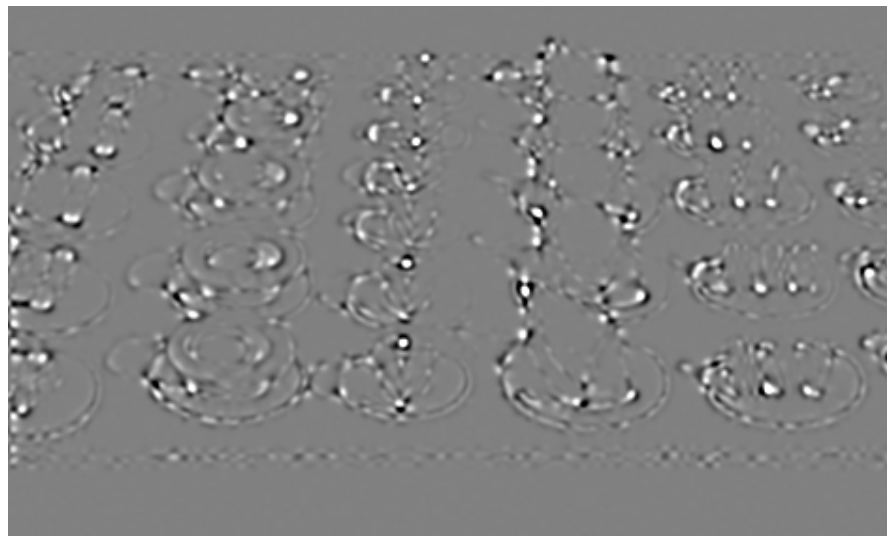
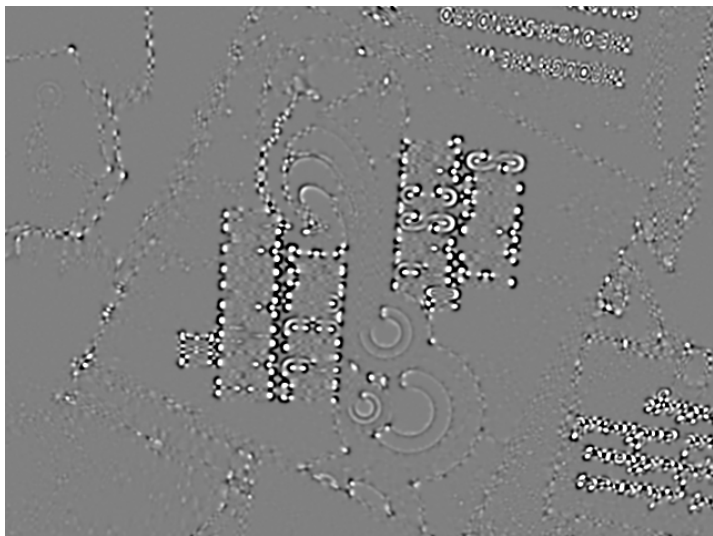
$$\det \mathbf{H}[x,y] = f_{xx}[x,y]f_{yy}[x,y] - (f_{xy}[x,y])^2$$



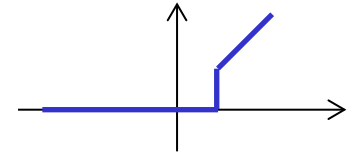
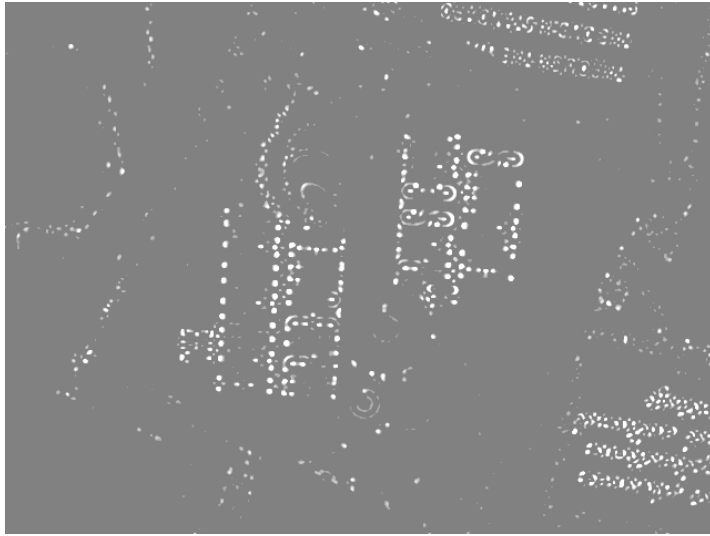
# Input images



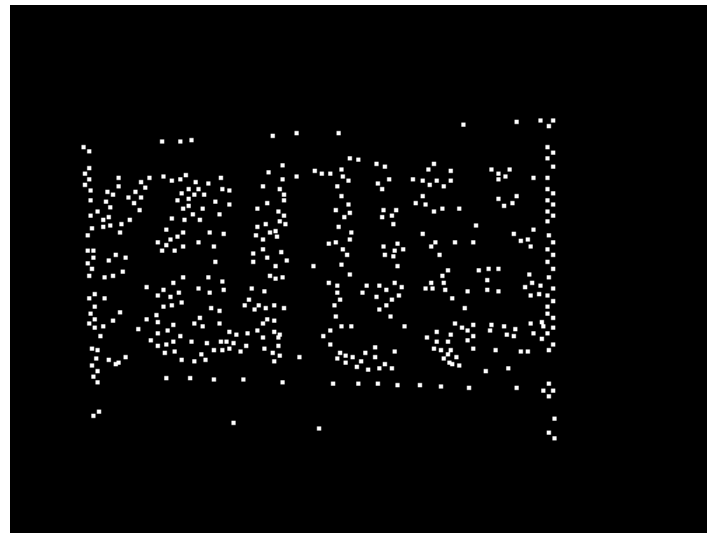
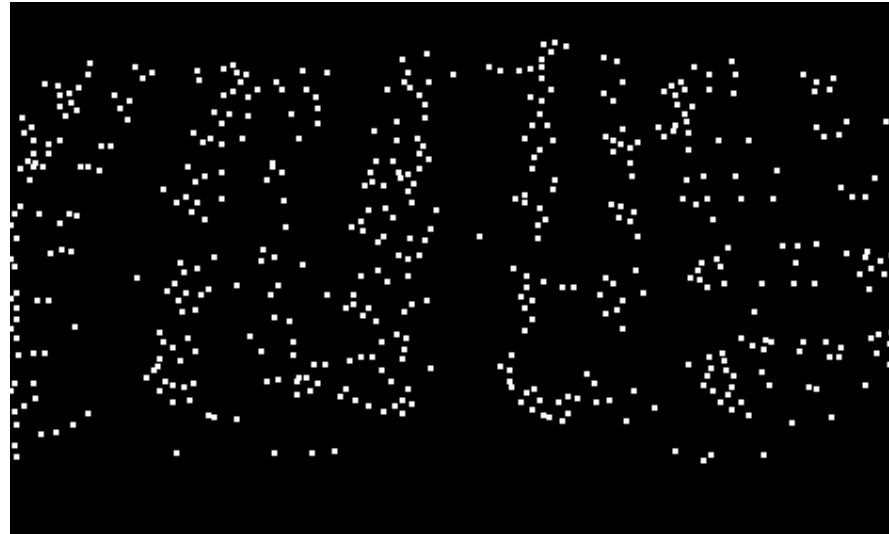
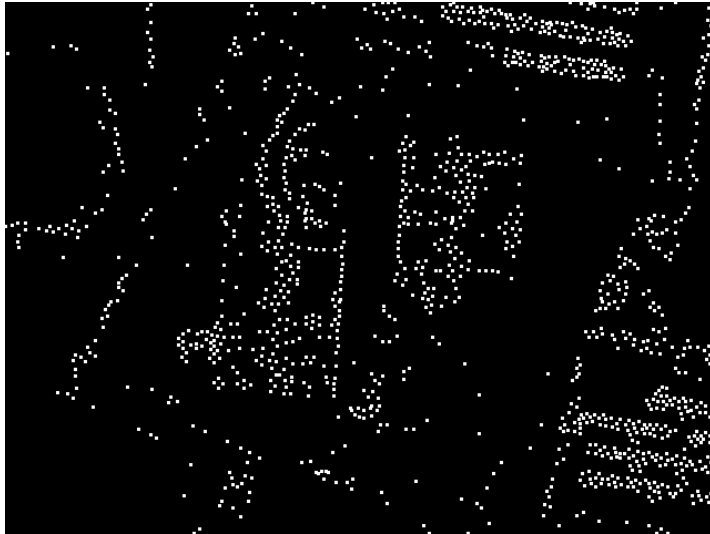
# DoH response



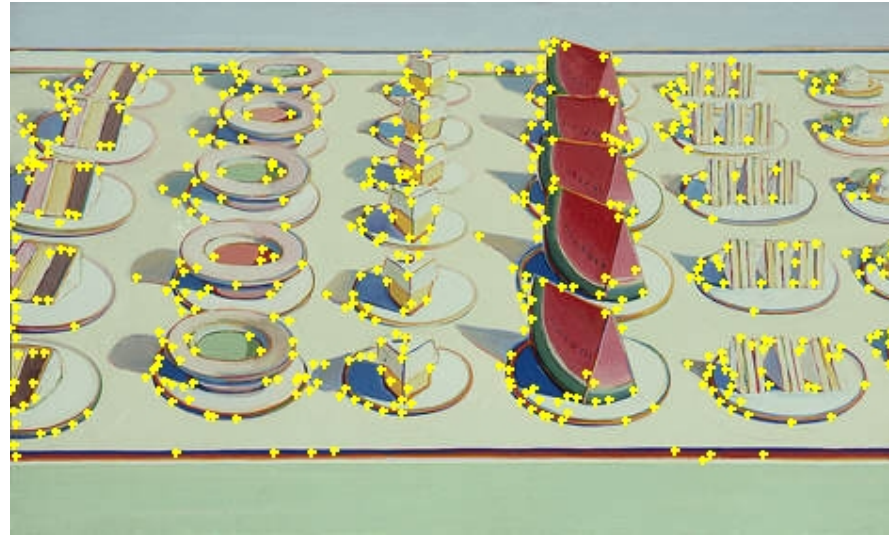
# Thresholded DoH response



# Local maxima of DoH response



# Superimposed DoH keypoints



500 strongest keypoints

