

minimum in the  
constrained subspace

$$\vec{p}_1 = \left(\frac{1}{2}, \frac{1}{2}\right)$$

$$f(\vec{x}) = \frac{1}{2}\vec{x}^\top \vec{x}$$

constrained  
subspace  
 $\vec{x}^\top \vec{1}_2 \geq 1$

unconstrained  
minimum

$$\vec{p}_0 = (0, 0)$$

