



$$y^{(i)}(w^T x^{(i)} + w_0) \geq 1$$

$$\downarrow$$

$$y^{(i)}(w^T x^{(i)} + w_0) \geq 1 - \xi_i$$

$$\min_{w, w_0, \xi} \frac{1}{2} \|w\|_2^2 + C \sum_{i=1}^n \xi_i \quad \text{u. d. Nbg. } y^{(i)}(w^T x^{(i)} + w_0) \geq 1 - \xi_i, \xi_i \geq 0$$