

$$\min_{\mathbf{w}, b} \frac{1}{2} \|\mathbf{w}\|^2 + C \sum_{i=1}^n \xi_i$$

$$\text{subject to} \quad y_i (\mathbf{w} \cdot \mathbf{x}_i + b) - 1 + \xi_i \geq 0$$