

**margin** support vectors  $(0 < \alpha_n < C)$

$$y_n (\mathbf{w}^\top \mathbf{x}_n + b) = 1 \quad (\xi_n = 0)$$

**non-margin** support vectors  $(\alpha_n = C)$

$$y_n (\mathbf{w}^\top \mathbf{x}_n + b) < 1 \quad (\xi_n > 0)$$

