Classification & Regression Loss

$$\mathscr{L}_{\text{Focal}}(p, y) = -\alpha_t(1 - p_t)^{\gamma}\log(p_t)$$

Objectness

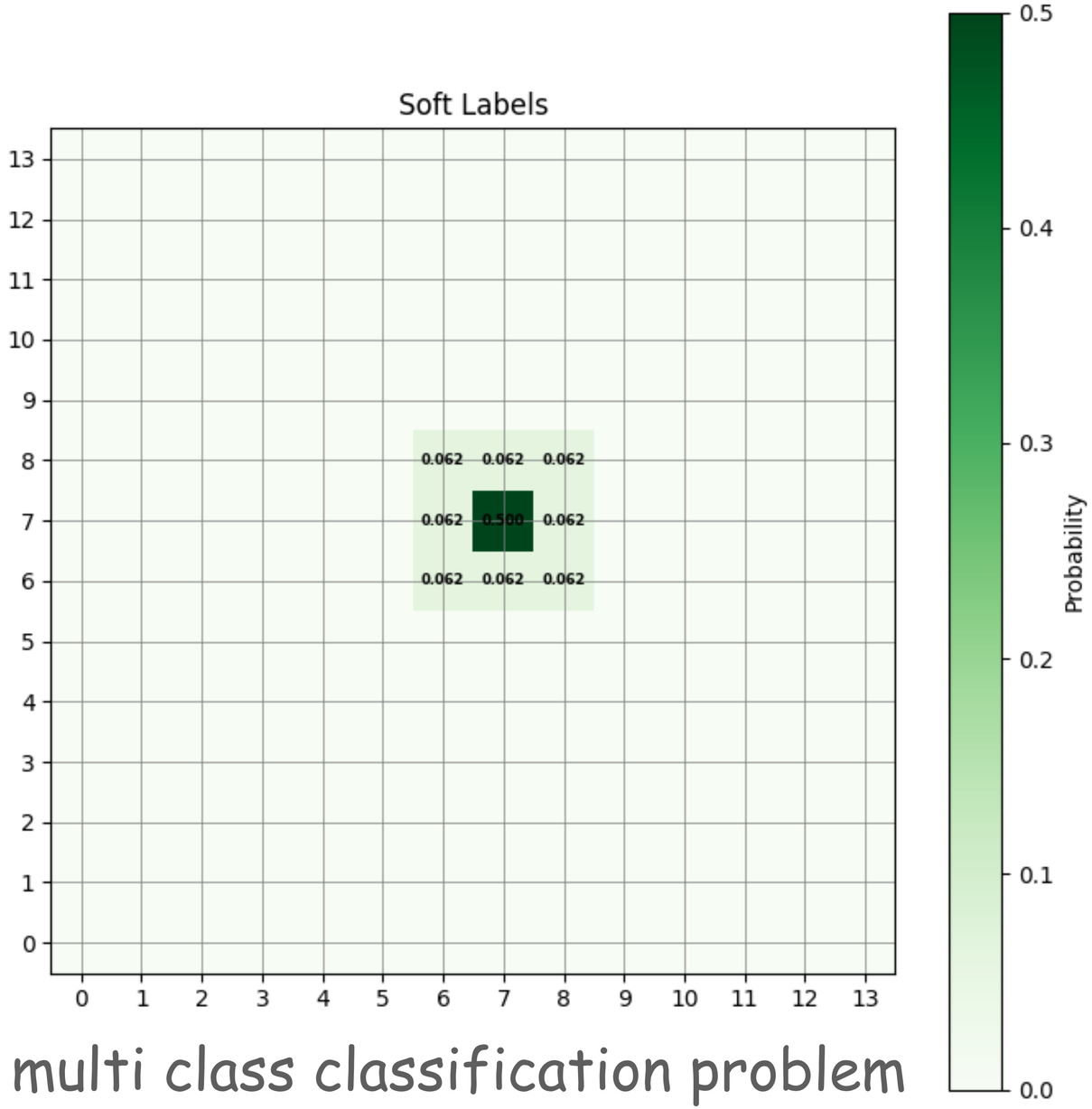
$$\mathscr{L}_{\text{Focal}} = -\sum_{c=1}^{C}\alpha_c(1 - p_c)^{\gamma}y_c\log(p_c)$$

Multi class

$$\mathscr{L}_{\text{Smooth }L_1}(x, y) = \begin{cases} 0.5(x - y)^2, & \text{if } |x - y| < 1 \\ |x - y| - 0.5, & \text{otherwise} \end{cases}$$

Regression

Keypoint Loss : Ground Truth soft labelling



multi class classification problem