## Problem1:

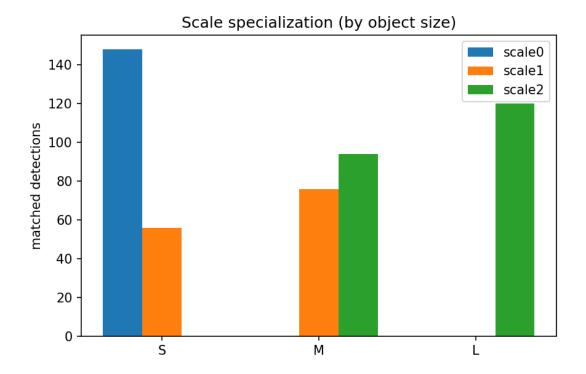
1. How different scales specialize for different object sizes

Scale0 specialize for small size obects, scale1 specialize for middle size objects, scale2 specialize for big size objects.

2. The effect of anchor scales on detection performance

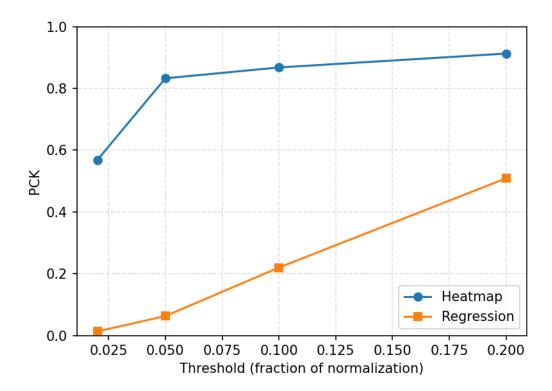
When the anchor scale is small, the detection ability of large objects decreases, and when the anchor scale is large, small objects cannot be detected.

3. Visualization of the learned features at each scale



## Problem2

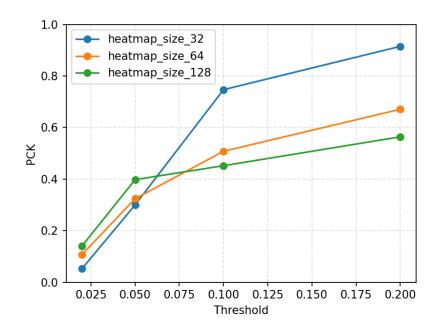
## 1. PCK curves at thresholds [0.05, 0.1, 0.15, 0.2]

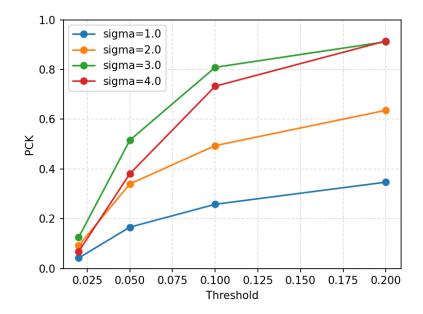


## 2. Analysis of why heatmap approach works better

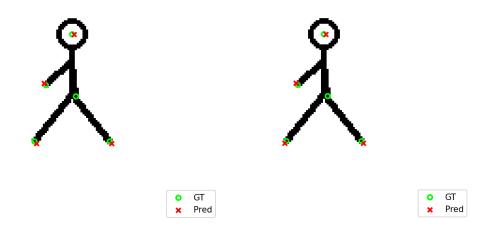
Heatmap is a pixel-by-pixel prediction, each pixel has a gradient, and Regression is a compression and then full connection

## 3. Ablation study results showing effect of sigma and resolution





# 4. Visualization of learned heatmaps and failure cases



Failure learned