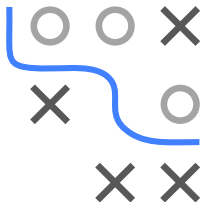


## Evaluation: Partial AUC



- Understand that entire AUC is not always relevant
- Learn about partial AUC



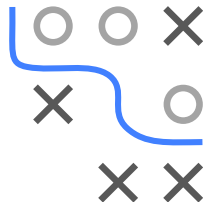
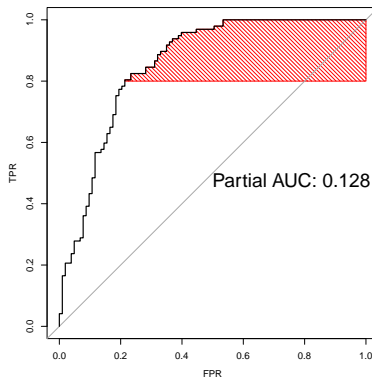
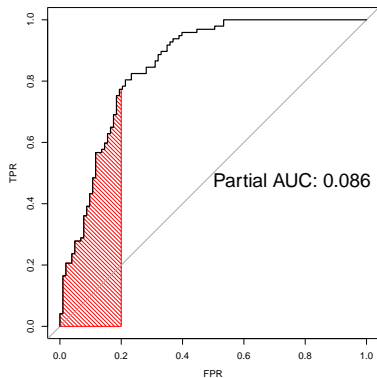
# PARTIAL AUC

- TPR and FPR often treated asymmetrically in biomed contexts
- TPR = disease detection, is crucial
- But low FPR needed to avoid unnecessary treatments
- Common solution: Fix either TPR or FPR to a required value and optimize the other, but not easy to select exact point



# PARTIAL AUC / 2

- Can be useful to limit region under ROC curve
- E.g.  $\text{FPR} > 0.2$  or  $\text{TPR} < 0.8$  might not be acceptable for task, then we don't want to integrate over that region





# 2WAY PARTIAL AUC

- Can also limit both TPR and FPR
- 2way pAUC = compute area under 2way limited segment

