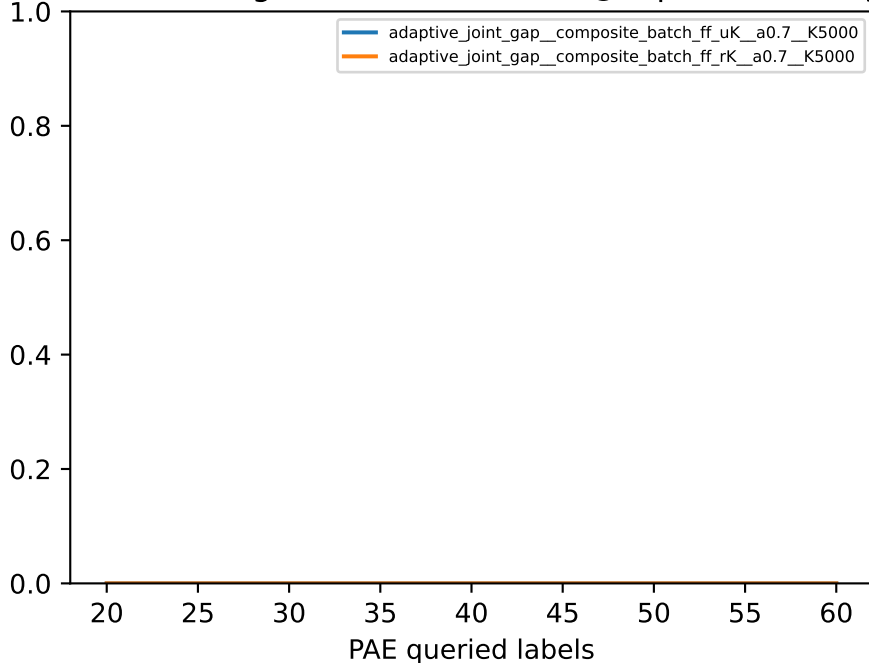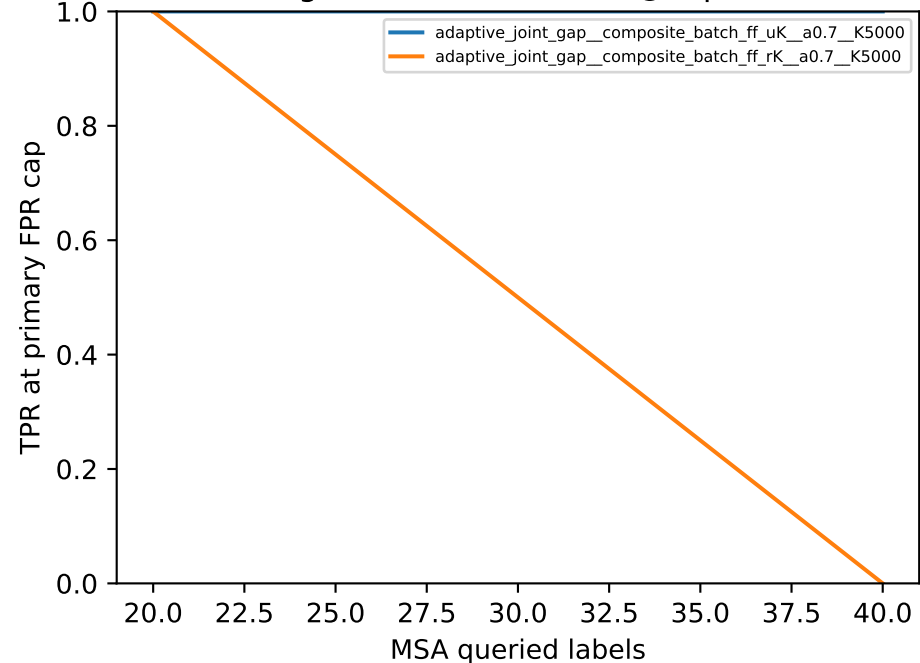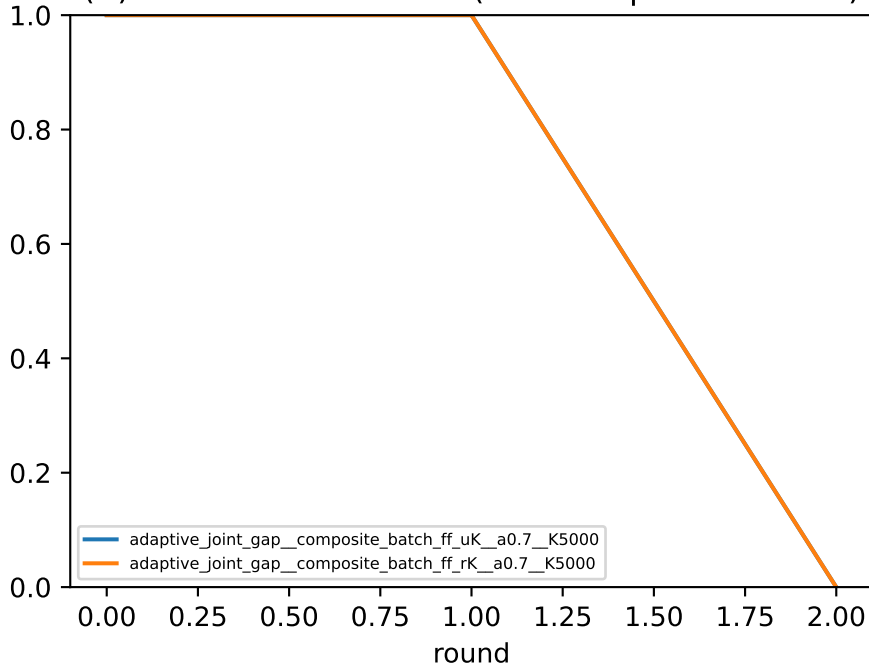(A) PAE learning curve (holdout TPR@cap vs PAE budget)

(B) MSA learning curve (holdout TPR@cap vs MSA budget

(C) Allocation over time (fraction queries to PAE)

(D) Δ-lag: floor-clear → joint-usable