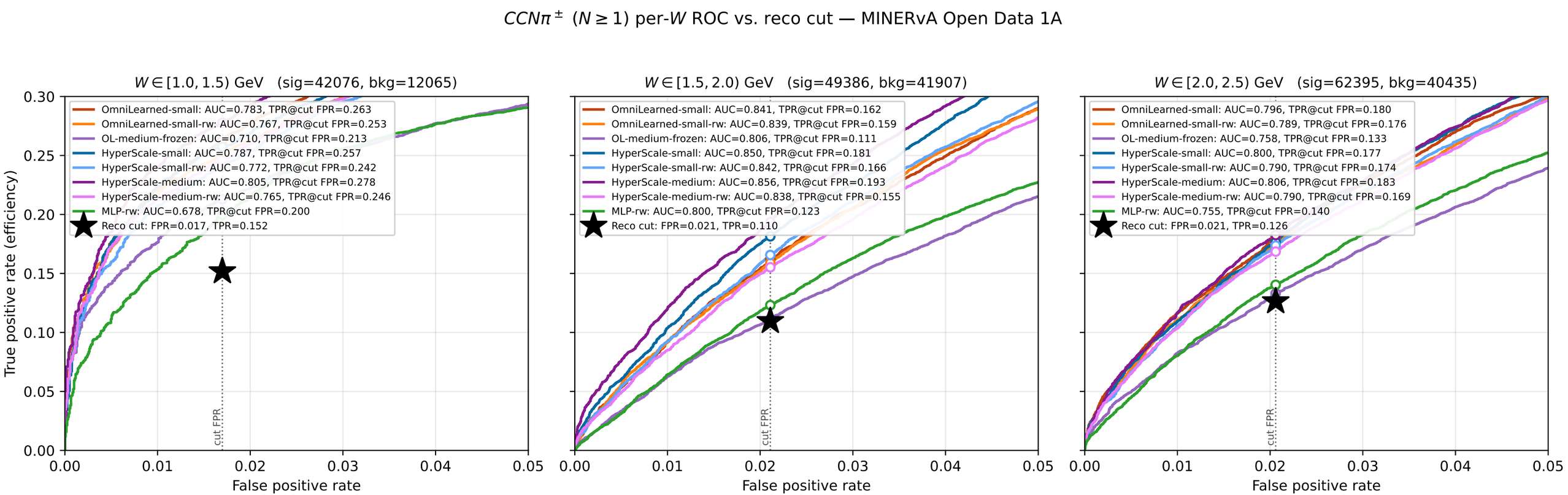

$CCN\pi^{\pm}$ ($N \geq 1$) per-W ROC vs. reco cut — MINERvA Open Data 1A
$W \in [1.0, 1.5)$ GeV (sig=42076, bkg=12065)
$W \in [1.5, 2.0)$ GeV (sig=49386, bkg=41907)
$W \in [2.0, 2.5)$ GeV (sig=62395, bkg=40435)
True positive rate (efficiency)
False positive rate
cut FPR
OmniLearned-small: AUC=0.783, TPR@cut FPR=0.263
OmniLearned-small-rw: AUC=0.767, TPR@cut FPR=0.253
OL-medium-frozen: AUC=0.710, TPR@cut FPR=0.213
HyperScale-small: AUC=0.787, TPR@cut FPR=0.257
HyperScale-small-rw: AUC=0.772, TPR@cut FPR=0.242
HyperScale-medium: AUC=0.805, TPR@cut FPR=0.278
HyperScale-medium-rw: AUC=0.765, TPR@cut FPR=0.246
MLP-rw: AUC=0.678, TPR@cut FPR=0.200
Reco cut: FPR=0.017, TPR=0.152
OmniLearned-small: AUC=0.841, TPR@cut FPR=0.162
OmniLearned-small-rw: AUC=0.839, TPR@cut FPR=0.159
OL-medium-frozen: AUC=0.806, TPR@cut FPR=0.111
HyperScale-small: AUC=0.850, TPR@cut FPR=0.181
HyperScale-small-rw: AUC=0.842, TPR@cut FPR=0.166
HyperScale-medium: AUC=0.856, TPR@cut FPR=0.193
HyperScale-medium-rw: AUC=0.838, TPR@cut FPR=0.155
MLP-rw: AUC=0.800, TPR@cut FPR=0.123
Reco cut: FPR=0.021, TPR=0.110
OmniLearned-small: AUC=0.796, TPR@cut FPR=0.180
OmniLearned-small-rw: AUC=0.789, TPR@cut FPR=0.176
OL-medium-frozen: AUC=0.758, TPR@cut FPR=0.133
HyperScale-small: AUC=0.800, TPR@cut FPR=0.177
HyperScale-small-rw: AUC=0.790, TPR@cut FPR=0.174
HyperScale-medium: AUC=0.806, TPR@cut FPR=0.183
HyperScale-medium-rw: AUC=0.790, TPR@cut FPR=0.169
MLP-rw: AUC=0.755, TPR@cut FPR=0.140
Reco cut: FPR=0.021, TPR=0.126