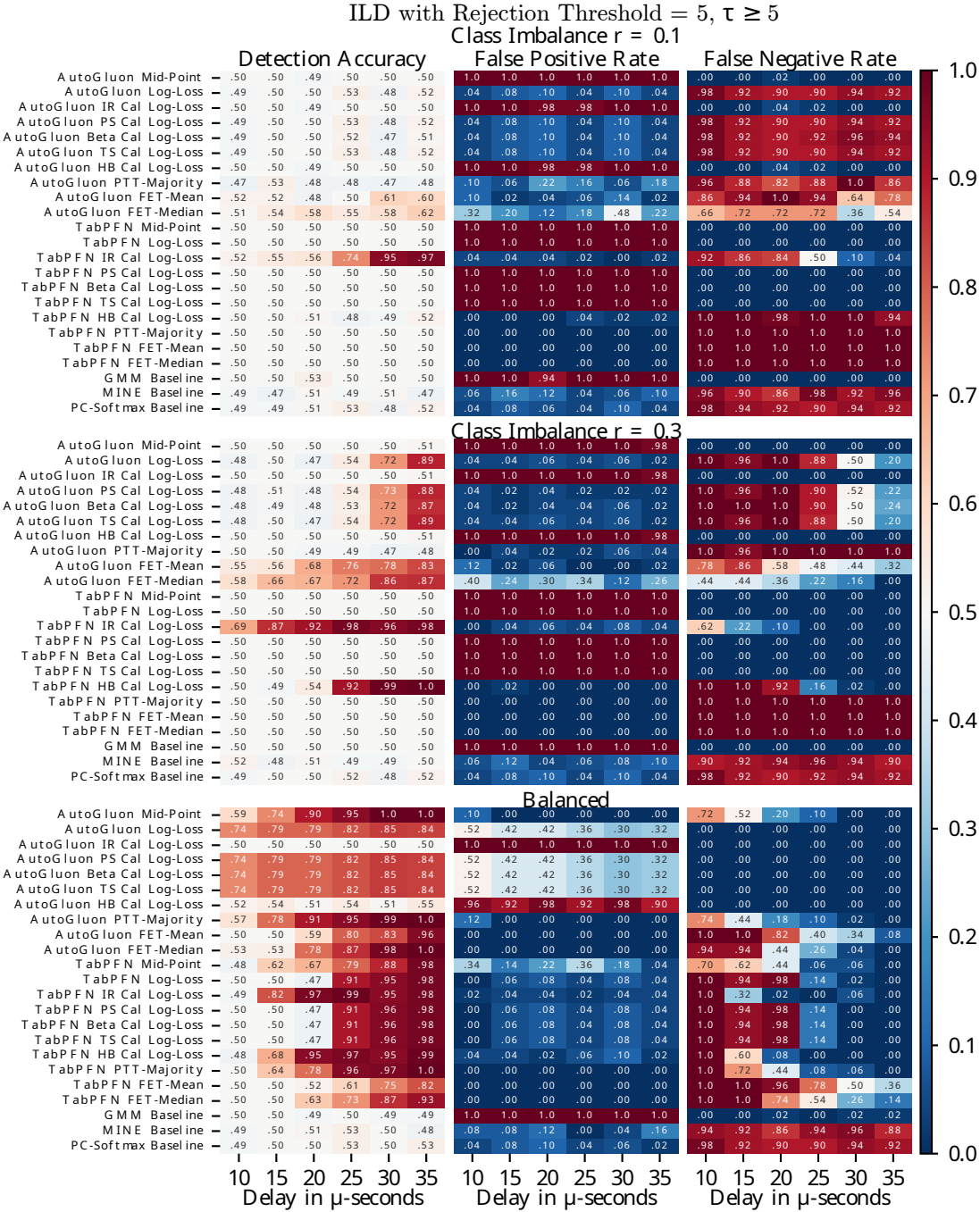
ILD with Rejection Threshold = 5, τ ≥ 5
Class Imbalance r = 0.1
Detection Accuracy
False Positive Rate
False Negative Rate
AutoGluon Mid-Point .50 .50 .49 .50 .50 .50 1.0 1.0 1.0 1.0 1.0 1.0 .00 .00 .02 .00 .00 .00
AutoGluon Log-Loss .49 .50 .50 .53 .48 .52 .04 .08 .10 .04 .10 .04 .98 .92 .90 .90 .94 .92
AutoGluon IR Cal Log-Loss .50 .50 .49 .50 .50 .50 1.0 1.0 .98 .98 1.0 1.0 .00 .00 .04 .02 .00 .00
AutoGluon PS Cal Log-Loss .49 .50 .50 .53 .48 .52 .04 .08 .10 .04 .10 .04 .98 .92 .90 .90 .94 .92
AutoGluon Beta Cal Log-Loss .49 .50 .50 .52 .47 .51 .04 .08 .10 .04 .10 .04 .98 .92 .90 .92 .96 .94
AutoGluon TS Cal Log-Loss .49 .50 .50 .53 .48 .52 .04 .08 .10 .04 .10 .04 .98 .92 .90 .90 .94 .92
AutoGluon HB Cal Log-Loss .50 .50 .49 .50 .50 .50 1.0 1.0 .98 .98 1.0 1.0 .00 .00 .04 .02 .00 .00
AutoGluon PTT-Majority .47 .53 .48 .48 .47 .48 .10 .06 .22 .16 .06 .18 .96 .88 .82 .88 1.0 .86
AutoGluon FET-Mean .52 .52 .48 .50 .61 .60 .10 .02 .04 .06 .14 .02 .86 .94 1.0 .94 .64 .78
AutoGluon FET-Median .51 .54 .58 .55 .58 .62 .32 .20 .12 .18 .48 .22 .66 .72 .72 .72 .36 .54
TabPFN Mid-Point .50 .50 .50 .50 .50 .50 1.0 1.0 1.0 1.0 1.0 1.0 .00 .00 .00 .00 .00 .00
TabPFN Log-Loss .50 .50 .50 .50 .50 .50 1.0 1.0 1.0 1.0 1.0 1.0 .00 .00 .00 .00 .00 .00
TabPFN IR Cal Log-Loss .52 .55 .56 .74 .95 .97 .04 .04 .04 .02 .00 .02 .92 .86 .84 .50 .10 .04
TabPFN PS Cal Log-Loss .50 .50 .50 .50 .50 .50 1.0 1.0 1.0 1.0 1.0 1.0 .00 .00 .00 .00 .00 .00
TabPFN Beta Cal Log-Loss .50 .50 .50 .50 .50 .50 1.0 1.0 1.0 1.0 1.0 1.0 .00 .00 .00 .00 .00 .00
TabPFN TS Cal Log-Loss .50 .50 .50 .50 .50 .50 1.0 1.0 1.0 1.0 1.0 1.0 .00 .00 .00 .00 .00 .00
TabPFN HB Cal Log-Loss .50 .50 .51 .48 .49 .52 .00 .00 .00 .04 .02 .02 1.0 1.0 .98 1.0 1.0 .94
TabPFN PTT-Majority .50 .50 .50 .50 .50 .50 .00 .00 .00 .00 .00 .00 1.0 1.0 1.0 1.0 1.0 1.0
TabPFN FET-Mean .50 .50 .50 .50 .50 .50 .00 .00 .00 .00 .00 .00 1.0 1.0 1.0 1.0 1.0 1.0
TabPFN FET-Median .50 .50 .50 .50 .50 .50 .00 .00 .00 .00 .00 .00 1.0 1.0 1.0 1.0 1.0 1.0
GMM Baseline .50 .50 .53 .50 .50 .50 1.0 1.0 .94 1.0 1.0 1.0 .00 .00 .00 .00 .00 .00
MINE Baseline .49 .47 .51 .49 .51 .47 .06 .16 .12 .04 .06 .10 .96 .90 .86 .98 .92 .96
PC-Softmax Baseline .49 .49 .51 .53 .48 .52 .04 .08 .06 .04 .10 .04 .98 .94 .92 .90 .94 .92
Class Imbalance r = 0.3
AutoGluon Mid-Point .50 .50 .50 .50 .50 .51 1.0 1.0 1.0 1.0 1.0 .98 .00 .00 .00 .00 .00 .00
AutoGluon Log-Loss .48 .50 .47 .54 .72 .89 .04 .04 .06 .04 .06 .02 1.0 .96 1.0 .88 .50 .20
AutoGluon IR Cal Log-Loss .50 .50 .50 .50 .50 .51 1.0 1.0 1.0 1.0 1.0 .98 .00 .00 .00 .00 .00 .00
AutoGluon PS Cal Log-Loss .48 .51 .48 .54 .73 .88 .04 .02 .04 .02 .02 .02 1.0 .96 1.0 .90 .52 .22
AutoGluon Beta Cal Log-Loss .48 .49 .48 .53 .72 .87 .04 .02 .04 .04 .06 .02 1.0 1.0 1.0 .90 .50 .24
AutoGluon TS Cal Log-Loss .48 .50 .47 .54 .72 .89 .04 .04 .06 .04 .06 .02 1.0 .96 1.0 .88 .50 .20
AutoGluon HB Cal Log-Loss .50 .50 .50 .50 .50 .51 1.0 1.0 1.0 1.0 1.0 .98 .00 .00 .00 .00 .00 .00
AutoGluon PTT-Majority .50 .50 .49 .49 .47 .48 .00 .04 .02 .02 .06 .04 1.0 .96 1.0 1.0 1.0 1.0
AutoGluon FET-Mean .55 .56 .68 .76 .78 .83 .12 .02 .06 .00 .00 .02 .78 .86 .58 .48 .44 .32
AutoGluon FET-Median .58 .66 .67 .72 .86 .87 .40 .24 .30 .34 .12 .26 .44 .44 .36 .22 .16 .00
TabPFN Mid-Point .50 .50 .50 .50 .50 .50 1.0 1.0 1.0 1.0 1.0 1.0 .00 .00 .00 .00 .00 .00
TabPFN Log-Loss .50 .50 .50 .50 .50 .50 1.0 1.0 1.0 1.0 1.0 1.0 .00 .00 .00 .00 .00 .00
TabPFN IR Cal Log-Loss .69 .87 .92 .98 .96 .98 .00 .04 .06 .04 .08 .04 .62 .22 .10 .00 .00 .00
TabPFN PS Cal Log-Loss .50 .50 .50 .50 .50 .50 1.0 1.0 1.0 1.0 1.0 1.0 .00 .00 .00 .00 .00 .00
TabPFN Beta Cal Log-Loss .50 .50 .50 .50 .50 .50 1.0 1.0 1.0 1.0 1.0 1.0 .00 .00 .00 .00 .00 .00
TabPFN TS Cal Log-Loss .50 .50 .50 .50 .50 .50 1.0 1.0 1.0 1.0 1.0 1.0 .00 .00 .00 .00 .00 .00
TabPFN HB Cal Log-Loss .50 .49 .54 .92 .99 1.0 .00 .02 .00 .00 .00 .00 1.0 1.0 .92 .16 .02 .00
TabPFN PTT-Majority .50 .50 .50 .50 .50 .50 .00 .00 .00 .00 .00 .00 1.0 1.0 1.0 1.0 1.0 1.0
TabPFN FET-Mean .50 .50 .50 .50 .50 .50 .00 .00 .00 .00 .00 .00 1.0 1.0 1.0 1.0 1.0 1.0
TabPFN FET-Median .50 .50 .50 .50 .50 .50 .00 .00 .00 .00 .00 .00 1.0 1.0 1.0 1.0 1.0 1.0
GMM Baseline .50 .50 .50 .50 .50 .50 1.0 1.0 1.0 1.0 1.0 1.0 .00 .00 .00 .00 .00 .00
MINE Baseline .52 .48 .51 .49 .49 .50 .06 .12 .04 .06 .08 .10 .90 .92 .94 .96 .94 .90
PC-Softmax Baseline .49 .50 .50 .52 .48 .52 .04 .08 .10 .04 .10 .04 .98 .92 .90 .92 .94 .92
Balanced
AutoGluon Mid-Point .59 .74 .90 .95 1.0 1.0 .10 .00 .00 .00 .00 .00 .72 .52 .20 .10 .00 .00
AutoGluon Log-Loss .74 .79 .79 .82 .85 .84 .52 .42 .42 .36 .30 .32 .00 .00 .00 .00 .00 .00
AutoGluon IR Cal Log-Loss .50 .50 .50 .50 .50 .50 1.0 1.0 1.0 1.0 1.0 1.0 .00 .00 .00 .00 .00 .00
AutoGluon PS Cal Log-Loss .74 .79 .79 .82 .85 .84 .52 .42 .42 .36 .30 .32 .00 .00 .00 .00 .00 .00
AutoGluon Beta Cal Log-Loss .74 .79 .79 .82 .85 .84 .52 .42 .42 .36 .30 .32 .00 .00 .00 .00 .00 .00
AutoGluon TS Cal Log-Loss .74 .79 .79 .82 .85 .84 .52 .42 .42 .36 .30 .32 .00 .00 .00 .00 .00 .00
AutoGluon HB Cal Log-Loss .52 .54 .51 .54 .51 .55 .96 .92 .98 .92 .98 .90 .00 .00 .00 .00 .00 .00
AutoGluon PTT-Majority .57 .78 .91 .95 .99 1.0 .12 .00 .00 .00 .00 .00 .74 .44 .18 .10 .02 .00
AutoGluon FET-Mean .50 .50 .59 .80 .83 .96 .00 .00 .00 .00 .00 .00 1.0 1.0 .82 .40 .34 .08
AutoGluon FET-Median .53 .53 .78 .87 .98 1.0 .00 .00 .00 .00 .00 .00 .94 .94 .44 .26 .04 .00
TabPFN Mid-Point .48 .62 .67 .79 .88 .98 .34 .14 .22 .36 .18 .04 .70 .62 .44 .06 .06 .00
TabPFN Log-Loss .50 .50 .47 .91 .95 .98 .00 .06 .08 .04 .08 .04 1.0 .94 .98 .14 .02 .00
TabPFN IR Cal Log-Loss .49 .82 .97 .99 .95 .98 .02 .04 .04 .02 .04 .04 1.0 .32 .02 .00 .06 .00
TabPFN PS Cal Log-Loss .50 .50 .47 .91 .96 .98 .00 .06 .08 .04 .08 .04 1.0 .94 .98 .14 .00 .00
TabPFN Beta Cal Log-Loss .50 .50 .47 .91 .96 .98 .00 .06 .08 .04 .08 .04 1.0 .94 .98 .14 .00 .00
TabPFN TS Cal Log-Loss .50 .50 .47 .91 .96 .98 .00 .06 .08 .04 .08 .04 1.0 .94 .98 .14 .00 .00
TabPFN HB Cal Log-Loss .48 .68 .95 .97 .95 .99 .04 .04 .02 .06 .10 .02 1.0 .60 .08 .00 .00 .00
TabPFN PTT-Majority .50 .64 .78 .96 .97 1.0 .00 .00 .00 .00 .00 .00 1.0 .72 .44 .08 .06 .00
TabPFN FET-Mean .50 .50 .52 .61 .75 .82 .00 .00 .00 .00 .00 .00 1.0 1.0 .96 .78 .50 .36
TabPFN FET-Median .50 .50 .63 .73 .87 .93 .00 .00 .00 .00 .00 .00 1.0 1.0 .74 .54 .26 .14
GMM Baseline .50 .50 .49 .50 .49 .49 1.0 1.0 1.0 1.0 1.0 1.0 .00 .00 .02 .00 .02 .02
MINE Baseline .49 .50 .51 .53 .50 .48 .08 .08 .12 .00 .04 .16 .94 .92 .86 .94 .96 .88
PC-Softmax Baseline .49 .50 .50 .53 .50 .53 .04 .08 .10 .04 .06 .02 .98 .92 .90 .90 .94 .92
10 15 20 25 30 35
Delay in μ-seconds
10 15 20 25 30 35
Delay in μ-seconds
10 15 20 25 30 35
Delay in μ-seconds
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0