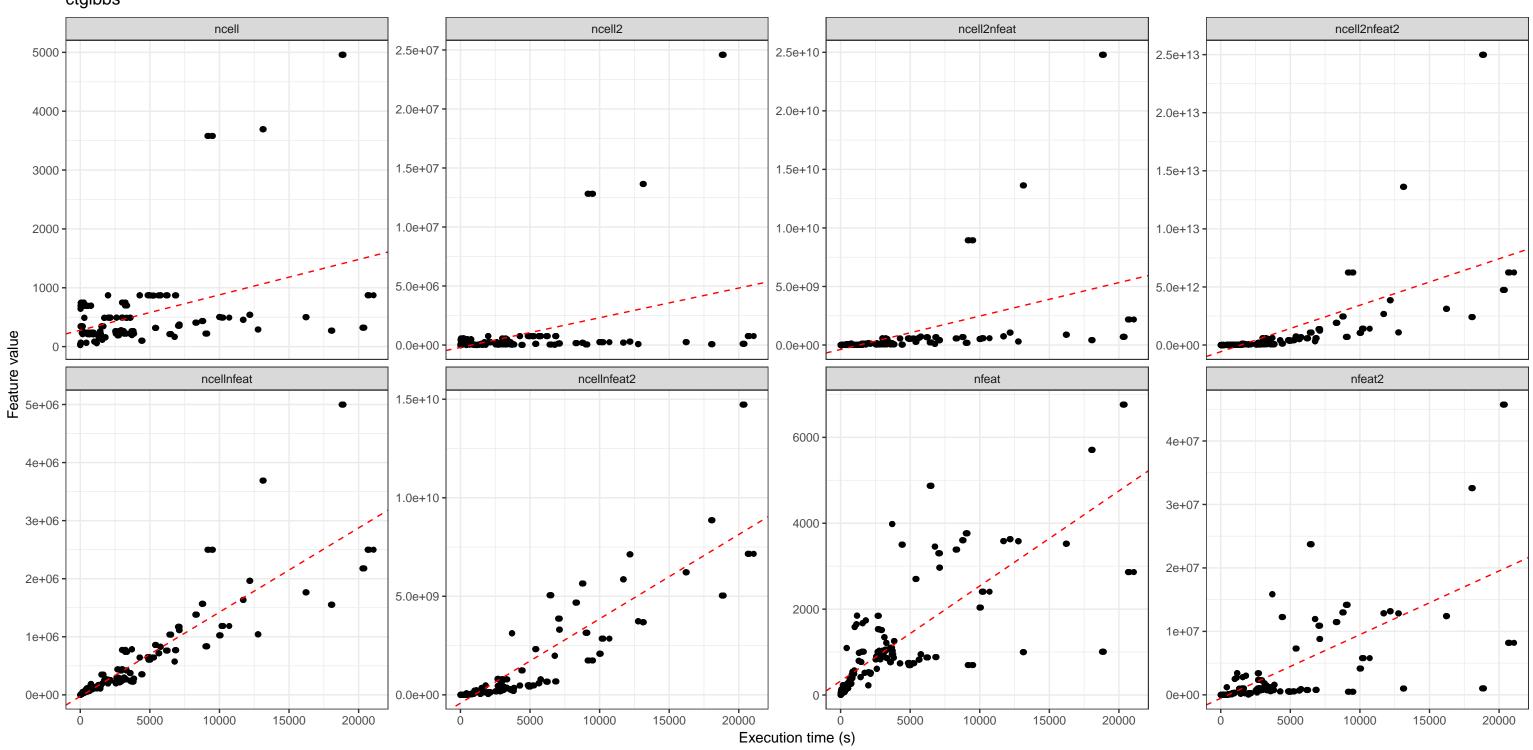
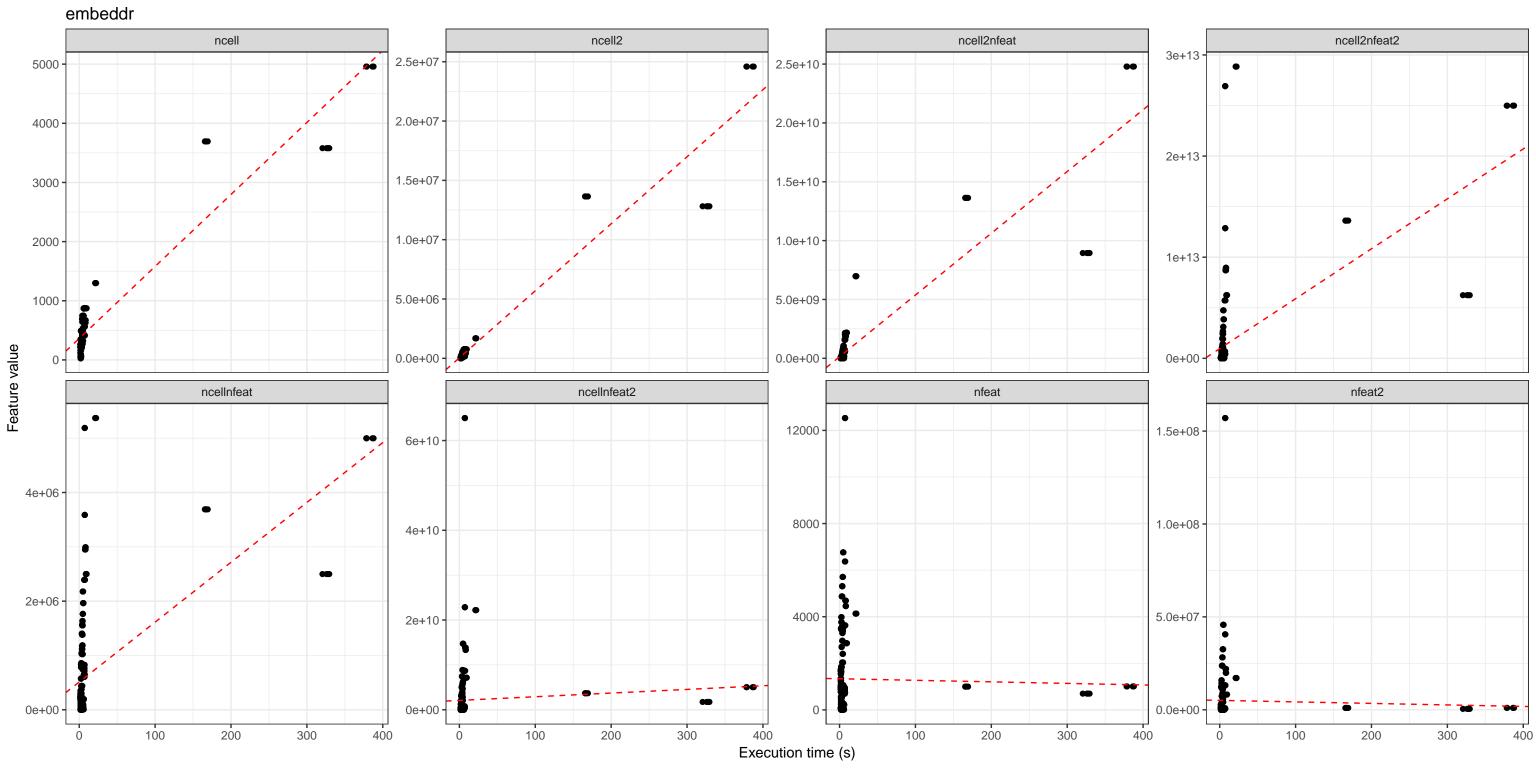
ctgibbs



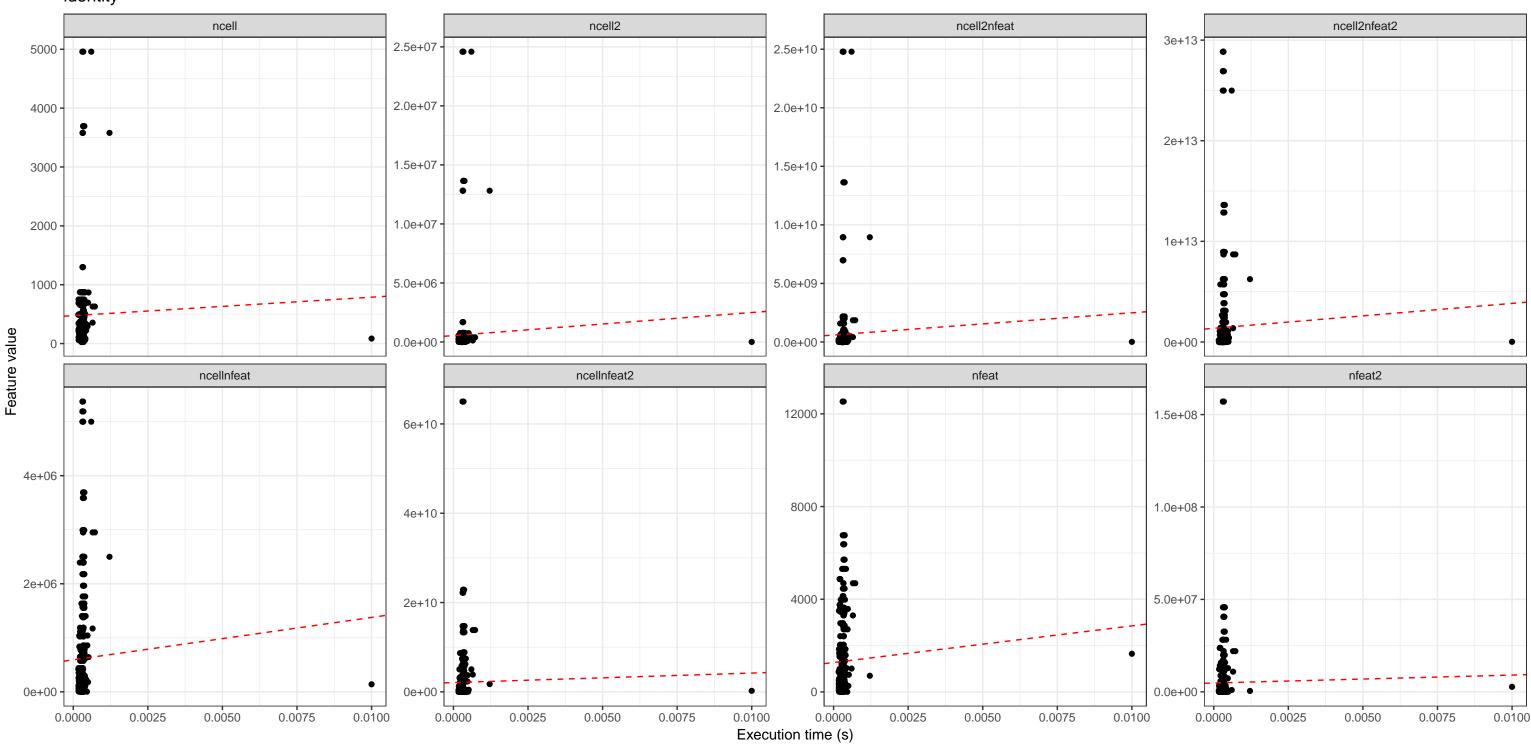
ctmaptpx ncell2 ncell2nfeat ncell2nfeat2 ncell 3e+13 2.5e+07 -5000 -2.5e+10 ••• • 2.0e+07 4000 -2.0e+10 2e+13 -1.5e+07 1.5e+10 3000 --1.0e+07 1.0e+10 2000 -1e+13 -5.0e+06 5.0e+09 1000 -Feature value 0.0e+00 0.0e+00 0e+00 ncellnfeat ncellnfeat2 nfeat nfeat2 12000 1.5e+08 · 6e+10 4e+06 -8000 1.0e+08 4e+10 -2e+06 4000 5.0e+07 2e+10 0e+00 0.0e+00 2000 4000 6000 8000 2000 4000 6000 8000 2000 4000 6000 8000 2000 4000 6000 8000 Execution time (s)

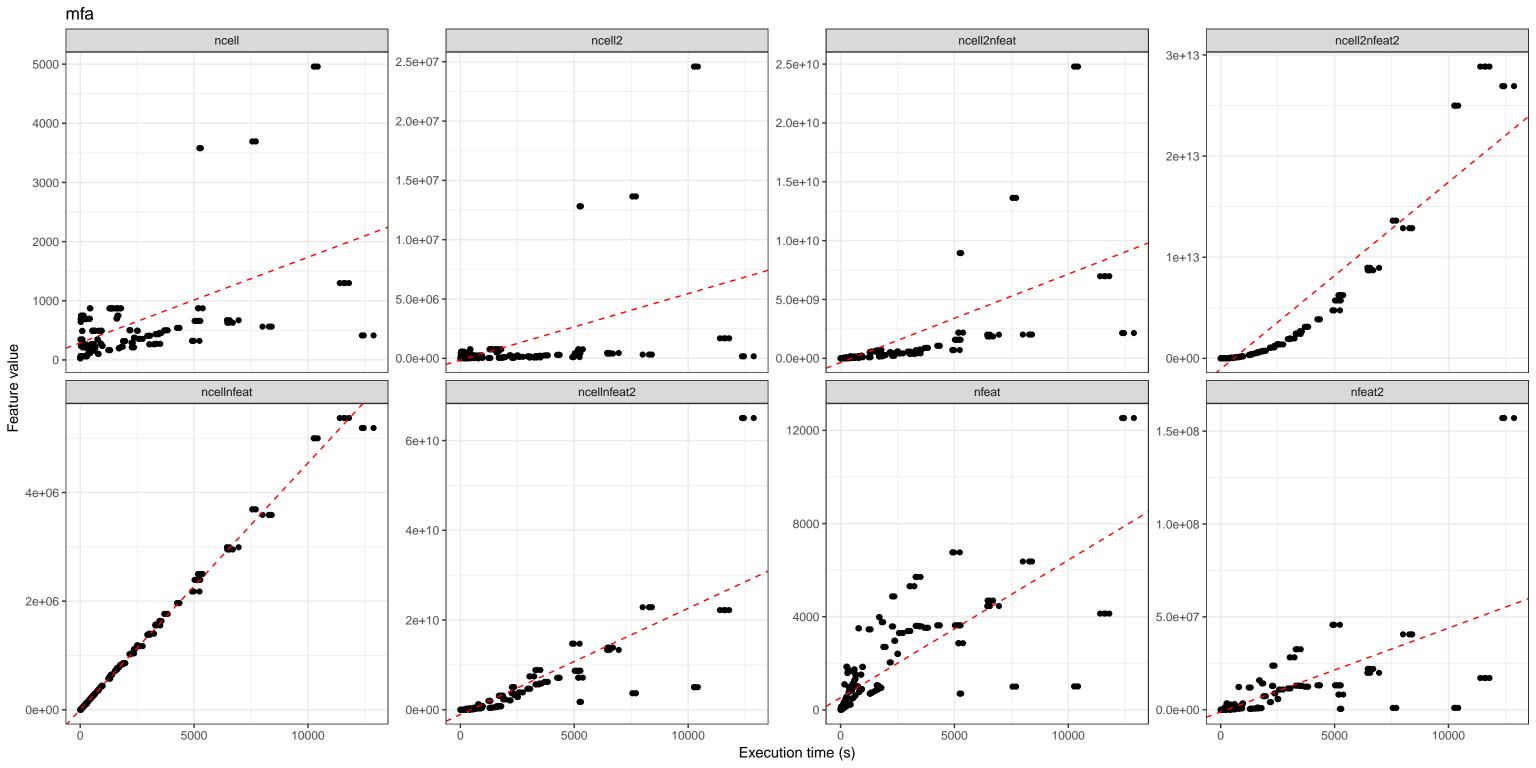
ctvem ncell2nfeat2 ncell ncell2 ncell2nfeat 3e+13 -2.5e+07 5000 -2.5e+10 2.0e+07 4000 -2.0e+10 • 2e+13 -1.5e+07 1.5e+10 3000 -1.0e+07 1.0e+10 2000 -1e+13 -5.0e+06 5.0e+09 1000 -Feature value 0.0e+00 ncellnfeat ncellnfeat2 nfeat nfeat2 12000 1.5e+08 -6e+10 4e+06 -8000 1.0e+08 -4e+10 -2e+06 -4000 5.0e+07 2e+10 0e+00 -0e+00 0.0e+00 750 500 750 250 500 750 250 500 750 100 250 1000 1000 1000 250 500

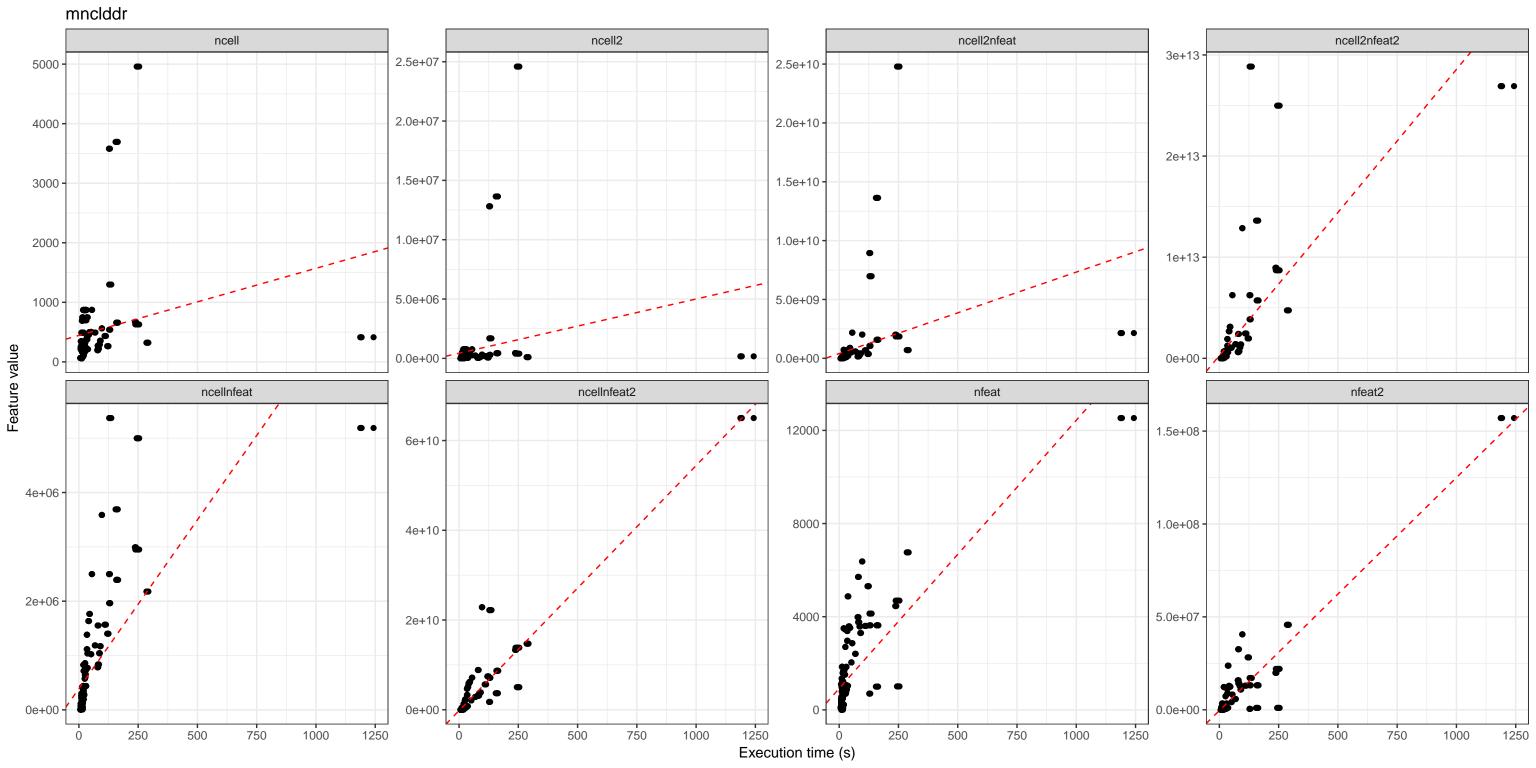


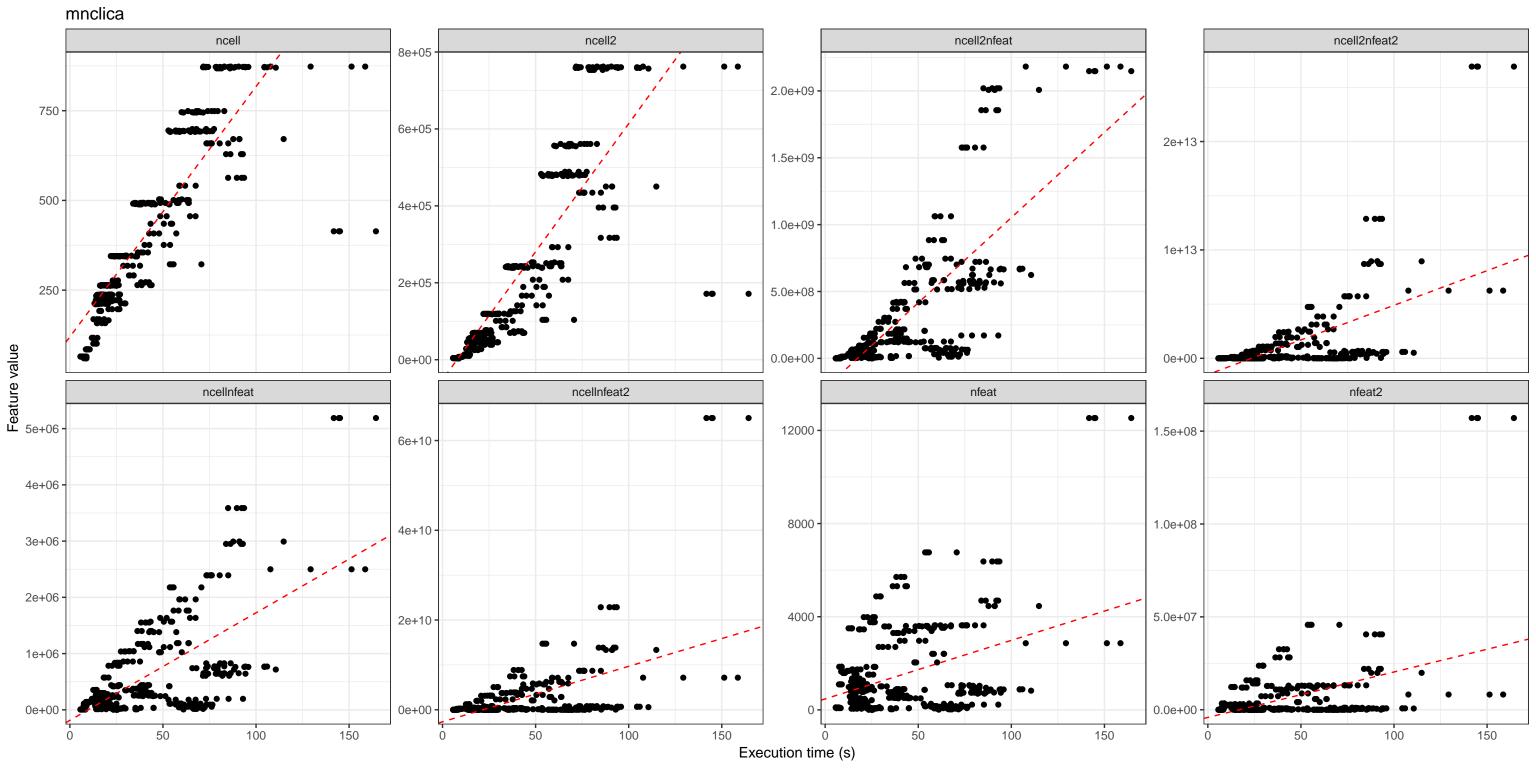
gpfates ncell2 ncell2nfeat2 ncell ncell2nfeat 3e+13 • • • • • • 3000 -1e+07 1e+10 2e+13 2000 -5e+06 -5e+09 1e+13 · 1000 -Feature value 0e+00 0e+00 0e+00 nfeat2 ncellnfeat2 nfeat ncellnfeat • 12000 1.5e+08 6e+10 -4e+06 -8000 -1.0e+08 4e+10 -2e+06 -4000 5.0e+07 2e+10 -• 0e+00 0.0e+002000 6000 8000 2000 4000 6000 8000 2000 4000 2000 6000 4000 6000 8000 4000 8000 Execution time (s)

identity

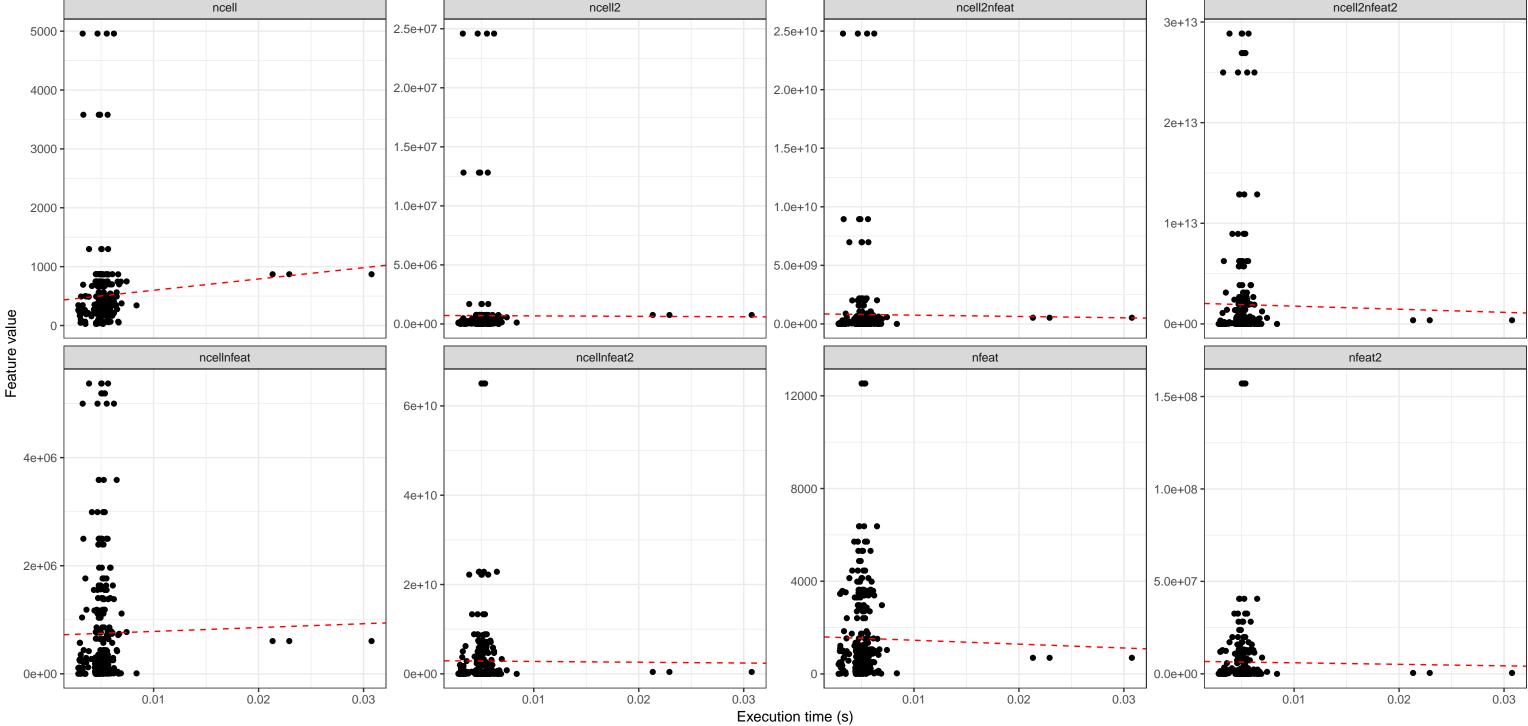








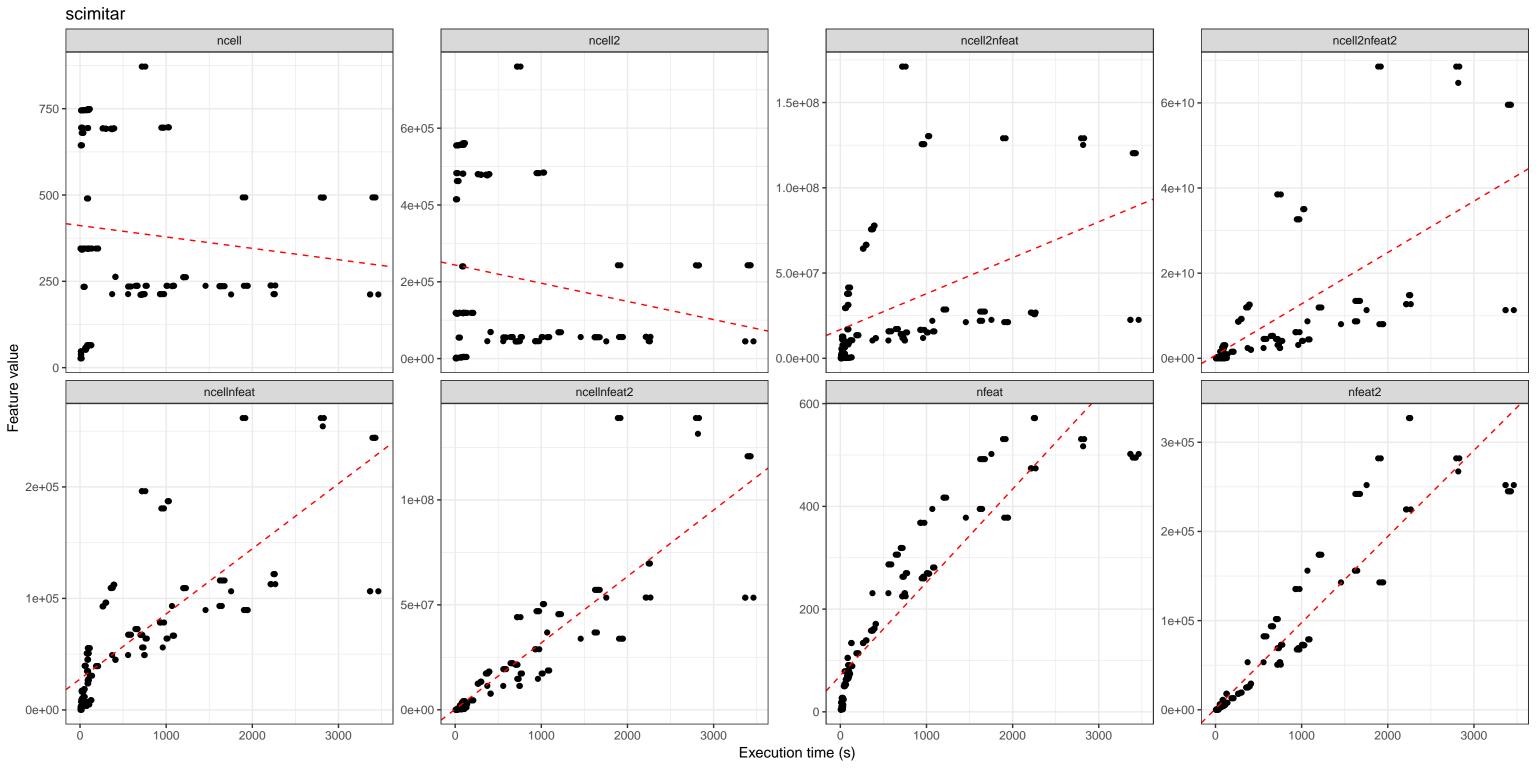
mpath ncell2 ncell2nfeat ncell2nfeat2 ncell 3e+13 2.5e+07 -2.5e+10 -• • •• • • •• • • •• • • •• 2.0e+07 2.0e+10 2e+13 -1.5e+07 1.5e+10 • •• 1.0e+07 1.0e+10 • •• 1e+13 -5.0e+06 5.0e+09 • • 0.0e+00 0.0e+00 ncellnfeat2 nfeat ncellnfeat nfeat2 12000 1.5e+08 -6e+10 -8000 1.0e+08 -4e+10 -• **•



phenopth ncell2 ncell2nfeat ncell2nfeat2 ncell 3e+13 2.5e+07 -5000 -2.5e+10 2.0e+07 4000 -2.0e+10 2e+13 -1.5e+07 3000 -1.5e+10 1.0e+07 1.0e+10 2000 -1e+13 5.0e+06 5.0e+09 1000 -Feature value 0.0e+00 0.0e+00 0e+00 ncellnfeat nfeat nfeat2 ncellnfeat2 12000 1.5e+08 · 6e+10 4e+06 -8000 1.0e+08 4e+10 -2e+06 4000 5.0e+07 2e+10 0e+00 -0.0e+00 6000 3000 6000 9000 3000 9000 3000 6000 9000 3000 6000 9000 Execution time (s)

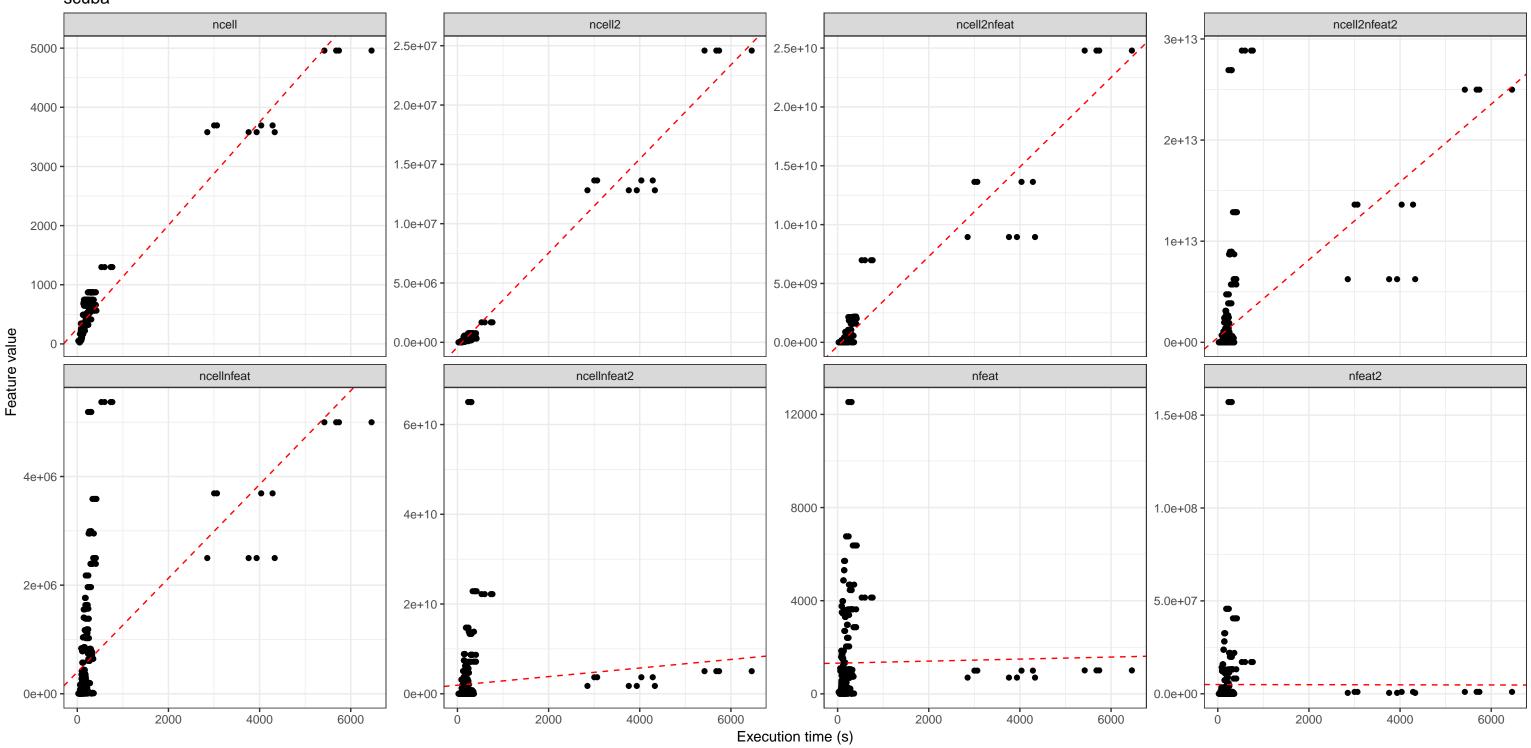
pseudogp ncell2 ncell2nfeat ncell ncell2nfeat2 160 -• • • 25000 1.2e+11 4e+07 20000 120 -3e+07 8.0e+10 15000 2e+07 80 -10000 4.0e+10 -1e+07 5000 40 Feature value 0e+00 0.0e+00 ncellnfeat ncellnfeat2 nfeat nfeat2 12500000 -• • • • • • 1.2e+09 -3000 3e+05 -10000000 8.0e+08 7500000 -2000 -2e+05 -5000000 -4.0e+08 -1e+05 -1000 -2500000 0.0e+00 0e+00 -5000 10000 15000 10000 20000 5000 10000 5000 10000 15000 20000 20000 5000 15000 15000 20000 Execution time (s)

random ncell2nfeat2 ncell ncell2 ncell2nfeat 3e+13 -2.5e+07 5000 -2.5e+10 •• • ... 2.0e+07 4000 -2.0e+10 ••••• 2e+13 -1.5e+07 1.5e+10 -3000 -•••• ... •••• 1.0e+07 2000 -1.0e+10 • • • 1e+13 -5.0e+06 5.0e+09 1000 -Feature value 0.0e+00 0.0e+00 ncellnfeat ncellnfeat2 nfeat nfeat2 12000 1.5e+08 -6e+10 4e+06 **-**8000 1.0e+08 **-**4e+10 2e+06 -4000 5.0e+07 -2e+10 -:3 0.0e + 000.10 0.15 0.05 0.10 0.15 0.05 0.10 0.15 0.05 0.05 0.10 0.15 Execution time (s)

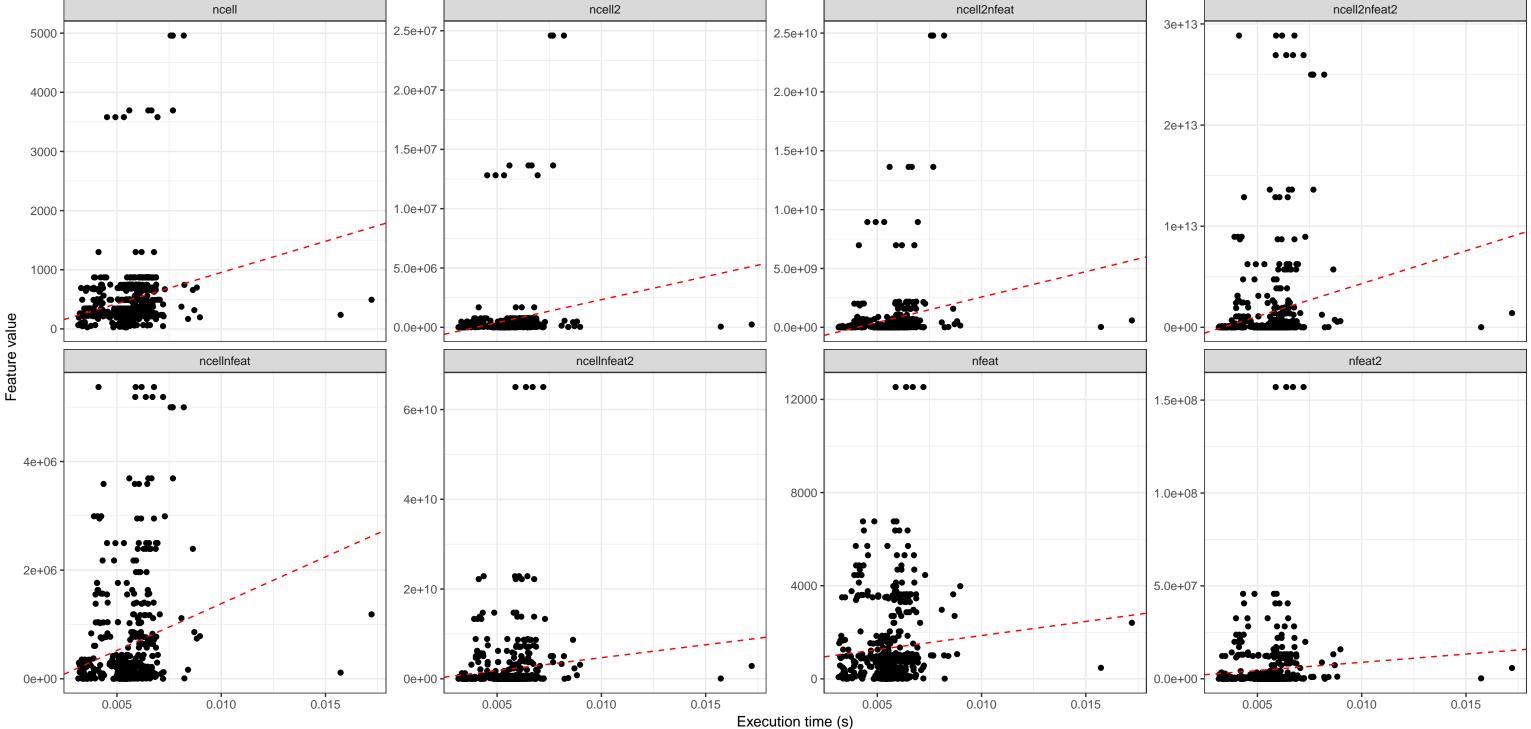


scorpius ncell2 ncell2nfeat ncell2nfeat2 ncell 3e+13 2.5e+07 5000 -2.5e+10 2.0e+07 4000 -2.0e+10 2e+13 -1.5e+07 3000 -1.5e+10 1.0e+07 1.0e+10 2000 -1e+13 -5.0e+06 5.0e+09 1000 Feature value 0.0e+00 0.0e+00 0e+00 ncellnfeat ncellnfeat2 nfeat nfeat2 12000 1.5e+08 -6e+10 4e+06 -8000 1.0e+08 4e+10 -2e+06 -4000 5.0e+07 2e+10 0e+00 -0e+00 0.0e+00 300 100 200 300 100 200 300 100 200 100 300 200 Execution time (s)

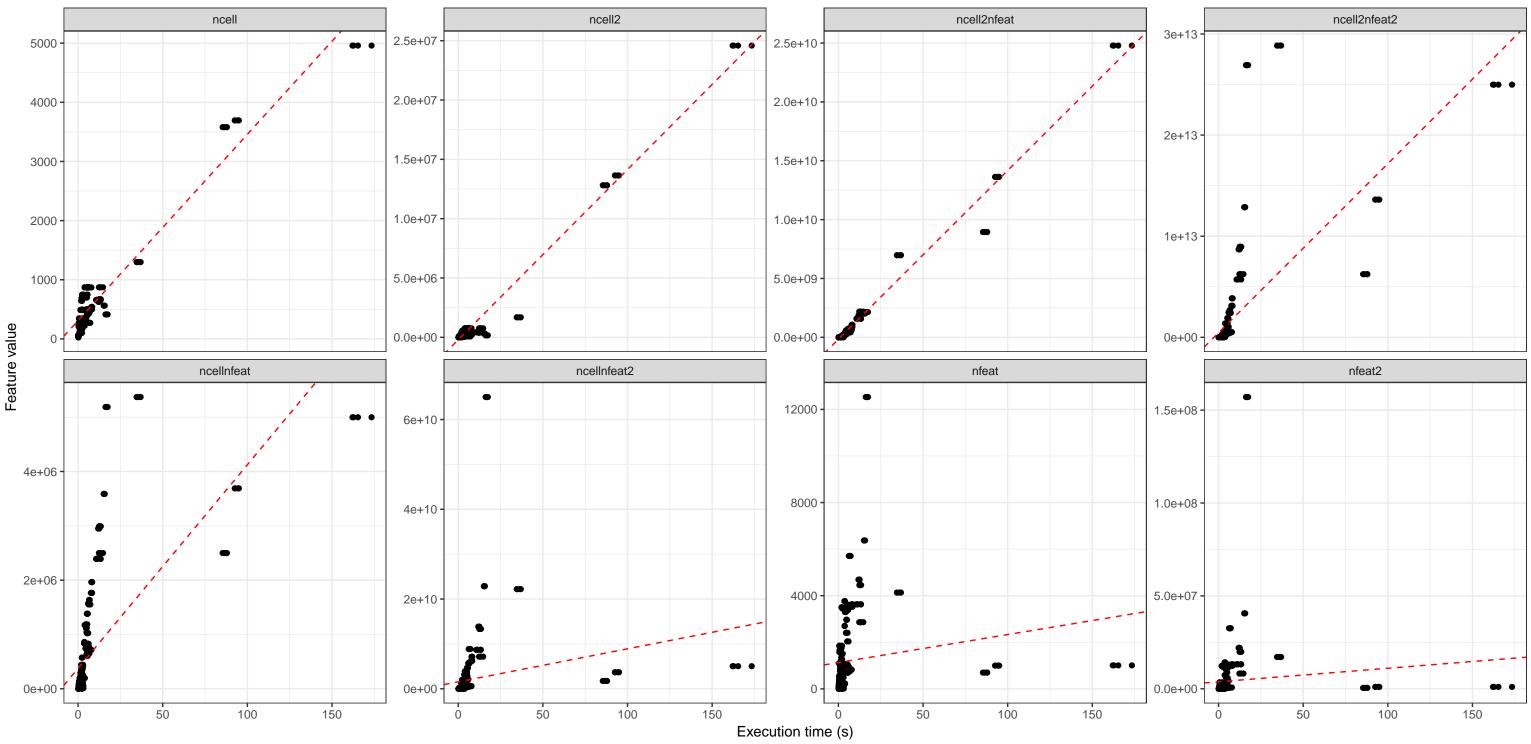
scuba



shuffle ncell ncell2 ncell2nfeat 3e+13 2.5e+07 5000 -2.5e+10 •• •• • • 2.0e+07 4000 -2.0e+10 2e+13 -1.5e+07 1.5e+10 3000 -



sincell ncell2nfeat ncell2nfeat2 ncell ncell2 3e+13 -2.5e+07 2.5e+10 2.0e+07 2.0e+10 2e+13 -1.5e+07 1.5e+10 1.0e+07 1.0e+10 1e+13 -5.0e+06 5.0e+09 0.0e+00 0.0e+00 0e+00 ncellnfeat ncellnfeat2 nfeat nfeat2 12000 1.5e+08 -6e+10 8000 1.0e+08 -4e+10 -



sIngsht ncell2nfeat ncell ncell2 ncell2nfeat2 3e+13 2.5e+07 5000 -2.5e+10 2.0e+07 4000 -2.0e+10 2e+13 -1.5e+07 3000 -1.5e+10 1.0e+07 2000 -1.0e+10 1e+13 -5.0e+06 1000 -5.0e+09 0.0e+00 0e+00 0.0e+00 nfeat nfeat2 ncellnfeat ncellnfeat2 12000 1.5e+08 -6e+10 4e+06 -8000 1.0e+08 -4e+10 -2e+06 -4000 5.0e+07 2e+10 0e+00 -0e+00

0.0e+00

10

20

30

30

20

10

Feature value

10

20

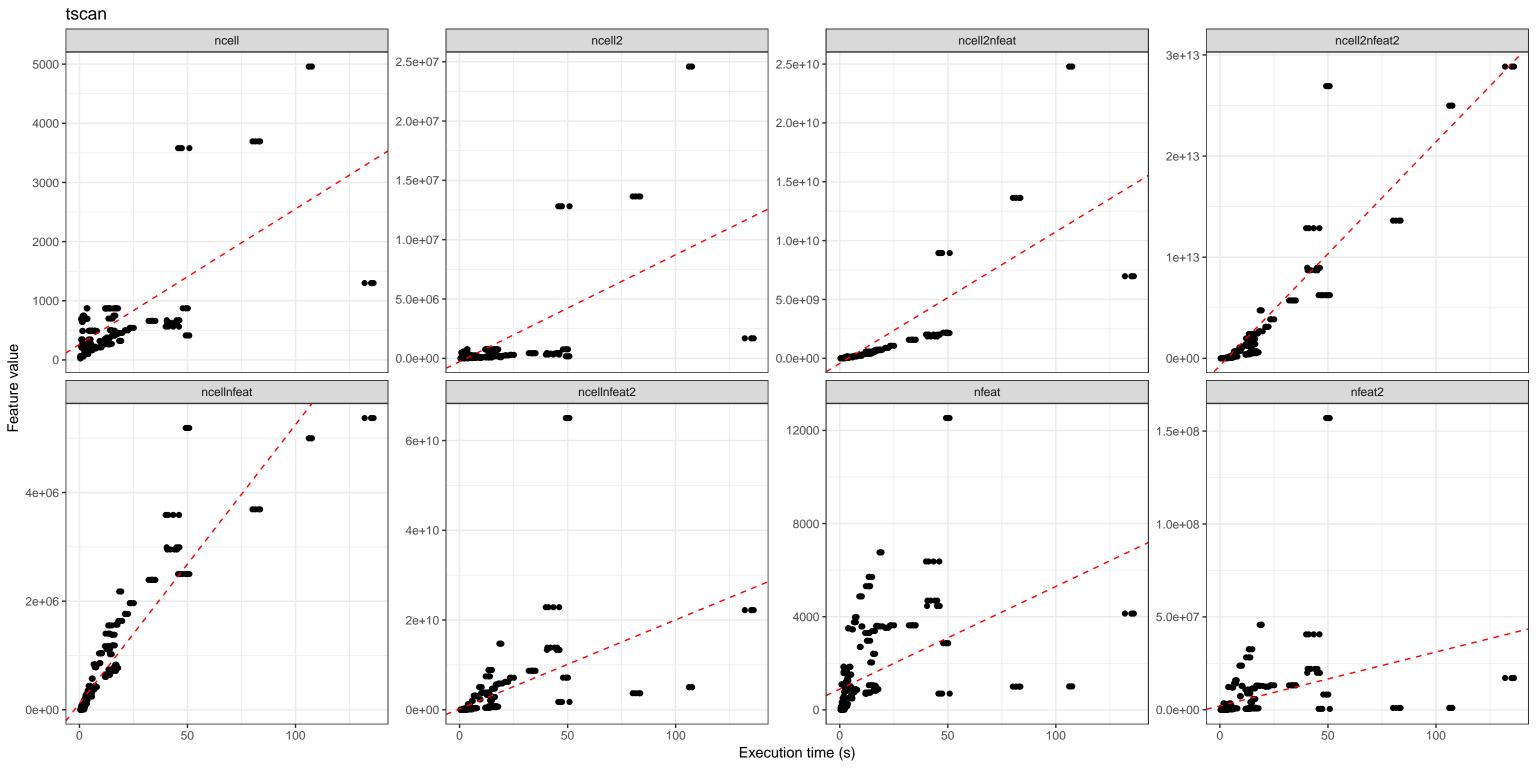
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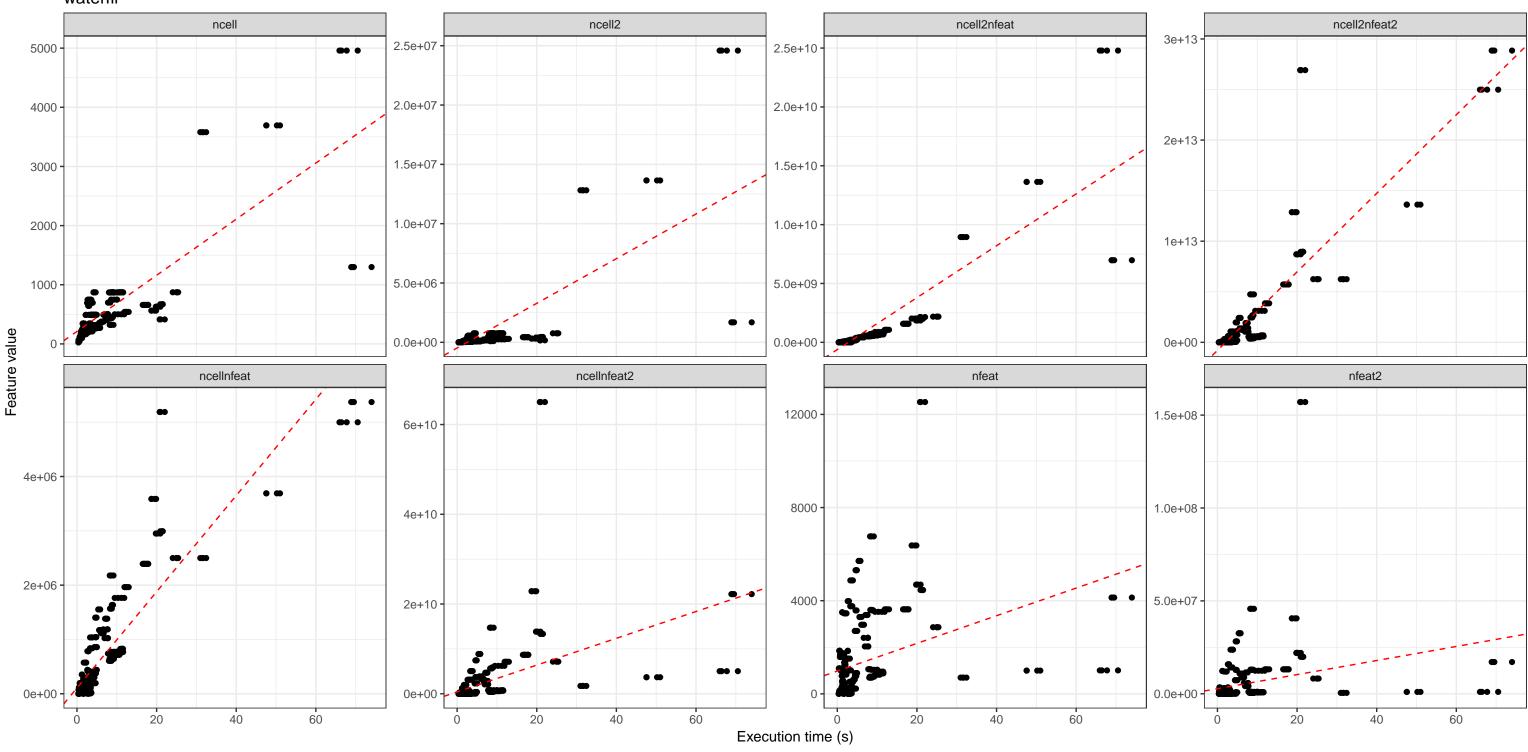
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30

stemid ncell2nfeat2 ncell ncell2 ncell2nfeat 3e+13 7.5e+09 **-**3000 -1e+07 2e+13 5.0e+09 2000 -5e+06 -1e+13 2.5e+09 -1000 -Feature value 0e+00 0.0e+00 0e+00 ncellnfeat ncellnfeat2 nfeat nfeat2 • 12000 -1.5e+08 6e+10 -4e+06 -8000 -1.0e+08 4e+10 -2e+06 -4000 5.0e+07 2e+10 -• 0e+00 0.0e+00 10000 15000 20000 5000 15000 20000 5000 10000 15000 20000 5000 10000 20000 5000 10000 15000 Execution time (s)



waterfll ncell2nfeat ncell2nfeat2 ncell ncell2 3e+13 -2.5e+07 2.5e+10 2.0e+07 2.0e+10 • • 2e+13 -1.5e+07 1.5e+10 • • • • • • 1.0e+07 1.0e+10 1e+13 -5.0e+06 5.0e+09 0.0e+00 0.0e+00 0e+00 ncellnfeat ncellnfeat2 nfeat nfeat2 12000 1.5e+08 -6e+10 8000 1.0e+08 -4e+10 -4000 5.0e+07 -2e+10



wishbone ncell2nfeat ncell2nfeat2 ncell ncell2 3e+13 · 2.5e+07 5000 -2.5e+10 2.0e+07 4000 -2.0e+10 2e+13 -1.5e+07 1.5e+10 3000 -••• 1.0e+07 2000 -1.0e+10 1e+13 -5.0e+06 5.0e+09 1000 -Feature value 0.0e+00 0.0e+00 ncellnfeat ncellnfeat2 nfeat nfeat2 •• •• 12000 1.5e+08 -6e+10 4e+06 -•• 8000 1.0e+08 -4e+10 -2e+06 -4000 5.0e+07 2e+10 0e+00 0.0e+00 200 300 200 300 100 200 300 200 100 100 100 300 Execution time (s)

wndrlst ncell2nfeat ncell2nfeat2 ncell ncell2 3e+13 · 2.5e+07 5000 -2.5e+10 2.0e+07 4000 -2.0e+10 2e+13 -1.5e+07 1.5e+10 3000 -1.0e+07 1.0e+10 2000 -1e+13 -5.0e+06 5.0e+09 1000 -Feature value 0.0e+00 0.0e+00 ncellnfeat ncellnfeat2 nfeat nfeat2 12000 1.5e+08 6e+10 4e+06 -8000 1.0e+08 -4e+10 -2e+06 -4000 5.0e+07 2e+10

200

150

250

Execution time (s)

0.0e+00

50

100

150

200

250

250

150

100

50

200

0e+00 -

50

100

0e+00

50

100

250

150

200