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[INFO ] Logging to:
/home/*****/LearningErrorFunctions/paramILS/output/scenario_large/log-
run391175854.txt
[INFO ] Version of ParamILS is 3.0.0, running on OpenJDK 64-Bit Server VM
(11.0.6) and Linux 3.10.0-862.el7.x86_64 (amd64)
[INFO ] Call String: paramils --scenario-file
learn_error_functions/scenario_large.txt --validation-runs 100
[INFO ] ParamILS started at: Dec 17, 2020, 6:24:20 PM. Minimizing mean quality.
[INFO ] Intensifying #1 (incumbent) ... 1 bonus run
[INFO ] Config #1 (incumbent) updated!
[INFO ]  $\infty$  -> 0.0606 (based on 0 and 1 runs)
[INFO ] Looking for random initial solutions better than the initial incumbent
[INFO ] Intensifying #2 ... 2 bonus runs
[INFO ] Config #1 (incumbent) updated!
[INFO ] 0.0606 -> 0.0303 (based on 1 and 2 runs)
[INFO ] Config #1 (incumbent) updated!
[INFO ] 0.0303 -> 0.038 (based on 2 and 4 runs)
[INFO ] New incumbent! (#2)
[INFO ] crossover: 0.8 -> 0.4 ; mingen: 400 -> 600 ; mutation: 1.0 -> 0.6 ;
pop: 100 -> 200 ; replacement: 0.05 -> 0.01 ; steady: 5 -> 25
[INFO ] 0.038 -> 0.038 (based on 4 and 4 runs)
[INFO ] New incumbent! (#1)
[INFO ] crossover: 0.4 -> 0.8 ; mingen: 600 -> 400 ; mutation: 0.6 -> 1.0 ;
pop: 200 -> 100 ; replacement: 0.01 -> 0.05 ; steady: 25 -> 5
[INFO ] 0.038 -> 0.038 (based on 4 and 4 runs)
[INFO ] New incumbent! (#2)
[INFO ] crossover: 0.8 -> 0.4 ; mingen: 400 -> 600 ; mutation: 1.0 -> 0.6 ;
pop: 100 -> 200 ; replacement: 0.05 -> 0.01 ; steady: 5 -> 25
[INFO ] 0.038 -> 0.038 (based on 4 and 4 runs)
[INFO ] Intensifying #2 (incumbent) ... 2 bonus runs
[INFO ] Config #2 (incumbent) updated!
[INFO ] 0.038 -> 0.0452 (based on 4 and 7 runs)
[INFO ] == Starting Iteration 1 ==
[INFO ] Tuner time: 10h29m52.00s elapsed
[INFO ] Initial configuration (#2 (incumbent))
[INFO ] -> 0.0452 (based on 7 runs)
[INFO ] Intensifying #27 ... 2 bonus runs
[INFO ] Config #2 (incumbent) updated!
[INFO ] 0.0452 -> 0.058 (based on 7 and 9 runs)
[INFO ] New incumbent! (#27)
[INFO ] replacement: 0.01 -> 0.03
[INFO ] 0.058 -> 0.0419 (based on 9 and 9 runs)
[INFO ] Intensifying #27 (incumbent) ... 1 bonus run
[INFO ] Config #27 (incumbent) updated!
[INFO ] 0.0419 -> 0.0417 (based on 9 and 10 runs)
[INFO ] Intensifying #27 (incumbent) ... 2 bonus runs
[INFO ] Config #27 (incumbent) updated!
[INFO ] 0.0417 -> 0.0398 (based on 10 and 12 runs)
[INFO ] Local optima #27 (incumbent) accepted
[INFO ] 0.0563 -> 0.0398 (based on 10 and 12 runs)
[INFO ] == Starting Iteration 2 ==
[INFO ] Tuner time: 124h47m37.00s elapsed
[INFO ] Perturbing
[INFO ] replacement: 0.03 -> 0.16 ; tournament: 2 -> 3
[INFO ] Intensifying #88 ... 4 bonus runs
[INFO ] Initial configuration (#88)
[INFO ] -> 0.0844 (based on 5 runs)
[INFO ] Intensifying #90 ... 1 bonus run
[INFO ] ParamILS completed
[INFO ] =====
[INFO ] ParamILS has finished. Reason: total CPU time limit (576000.0 s) has
been reached.
[INFO ] Total number of runs performed: 261 (261), total configurations tried:
116

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[INFO ] Total CPU time used: 577085 s, total wallclock time used: 577235 s
[INFO ] ParamILS's final incumbent found iteration 1, ID #27
[INFO ] Estimated mean quality of final incumbent on training set: 0.0398
[INFO ] Estimation based on 12 runs on 5 training instances
[INFO ] -----
[INFO ] Differences with initial configuration:
crossover: 0.8 -> 0.4
mingen: 400 -> 600
mutation: 1.0 -> 0.6
pop: 100 -> 200
replacement: 0.05 -> 0.03
steady: 5 -> 25
[INFO ] =====
[INFO ] Now starting offline validation.
[INFO ] Testing final incumbent
[INFO ] =====
[INFO ] Validation has finished. Time used: 11588 s.
[INFO ] Estimated mean quality of final incumbent on test set: 0.0903
[INFO ] Estimation based on 100 runs on 5 test instances
[INFO ] Sample call for final incumbent:
cd /home/*****/LearningErrorFunctions/paramILS/learn_error_functions; ruby
wrapper.rb ../../learn/spaces/complete_lt-5-8.txt 0 1.7976931348623157E308
2147483647 953632 -crossover '0.4' -mingen '600' -mutation '0.6' -pop '200' -
replacement '0.03' -steady '25' -tournament '2'
[INFO ] =====
[INFO ] Additional information about run 391175854 in:
/home/*****/LearningErrorFunctions/paramILS/output/scenario_large

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Results of the hyper-parameters tuning:

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crossover: 0.4
mingen: 600
mutation: 0.6
pop: 200
replacement: 0.03
steady: 25

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