Additional Evaluation for [1]

Md Solimul Chowdhury, Cayden R. Codel, and Marijn J.H. Heule

Carnegie Mellon University, Pittsburgh, Pennsylvania, United States
{mdsolimc, ccodel, mheule}@cs.cmu.edu

This document describes additional experiments for the paper titled *A Linear Weight Transfer Rule for Local Search* [1].

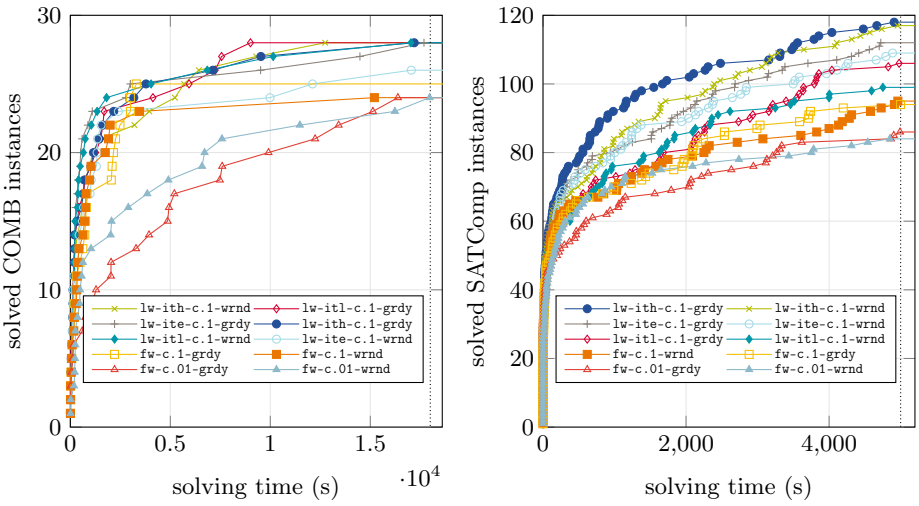

Fig. 6. Performance profiles of `yal-lin` (fw-c.01-grdy) and nine modifications for COMB (left) and SATComp (right) with seed 123

1 Experimental Results with a Different Seed

For all our previous experiments, we used the default seed (seed of 0) used in the solvers. We have repeated the experiments reported in Section 6.1 and 6.2 (in [1]) for COMB and SATComp with a seed of 123. Here, we present the results with this changed seed value.

Figure 6 and 7 compare the performance of various configurations of `yal-lin` against their baselines for this changed seed, without restarts and with restarts, respectively. With the changed seeds, when `yal-lin` does not perform restarts (Figure 3 in [1]), all of our configurations performs better than the baseline `fw-c.01-grdy`, except `fw-c.01-wrnd`. Similar to the results with seed 0, with the seed of 123, the configurations implementing `linearwt` dominates over the

configurations with `fixedwt`. When restarts are enabled (Figure 7), with seed 123, the overall performance of our configurations are similar to what they are with seed 0 (Figure 4 in [1]).

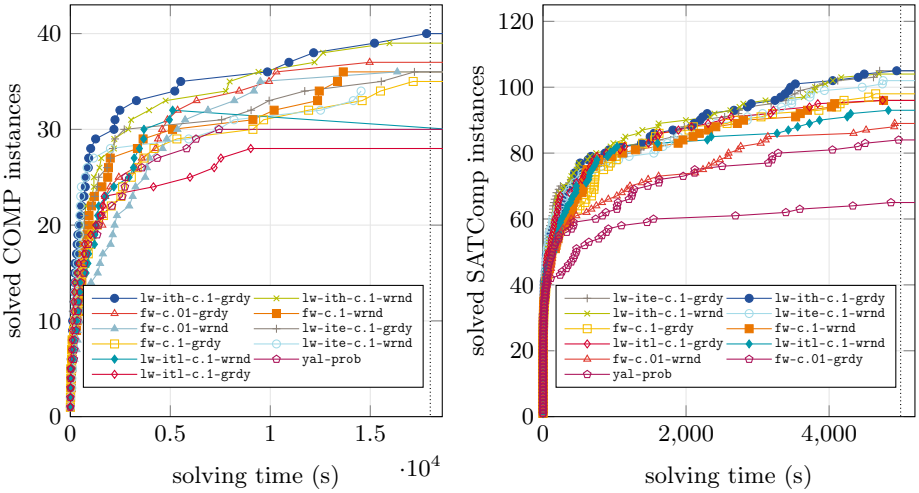

Fig. 7. Solve time comparisons between base `yal-prob`, and 10 `yal-lin` settings for COMB and SATComp with seed 123, where restarts are enabled

References

1. Chowdhury, M.S., Codel, C.R., Heule, M.J.: A Linear Weight Transfer Rule for Local Search. In: NASA Formal Methods 2023 (to appear)