

SATLike-c(w): Solver Description

1st Zhendong Lei

State Key Laboratory of Computer Science
Institute of Software, Chinese Academy of Sciences
School of Computer Science and Technology
University of Chinese Academy of Sciences
Beijing, China
leizd@ios.ac.cn

2nd Shaowei Cai

State Key Laboratory of Computer Science
Institute of Software, Chinese Academy of Sciences
School of Computer Science and Technology
University of Chinese Academy of Sciences
Beijing, China
caisw@ios.ac.cn

Abstract—In this document, we briefly describe the techniques employed by the *SATLike-c(w)* solver participation in MaxSAT Evaluation 2020.

I. INTRODUCTION

SATLike-c(w) participates in incomplete track. *SATLike-c(w)* has two engines, one is local search solver *SATLike* [1] and the other is SAT-based solver *TT-Open-WBO-inc* [2]. First, a core-guided SAT solver is executed to find a feasible solution. Then *SATLike* is executed with this feasible solution as its initial solution. *SATLike* keeps working until it fails to improve the current solution in a given time limit. After that, *TT-Open-WBO-inc* is executed to continue to improve the current solution.

II. ACKNOWLEDGEMENT

Thank Zhihan Chen for his contribution to this work.

REFERENCES

- [1] Zhendong Lei and Shaowei Cai. "Solving(weighted) partial maxsat by dynamic local search for SAT." In Proceedings of the Twenty-Seventh International Joint Conference on Artificial Intelligence, IJCAI 2018, July 13-19, 2018, Stockholm, Sweden. pages 1346–1352, 2018.
- [2] Alexander Nadel. "Anytime weighted maxsat with improved polarity selection and bit-vector optimization." In Clark W. Barrett and Jin Yang, editors, 2019 Formal Methods in Computer Aided Design, FMCAD 2019, San Jose, CA, USA, October 22-25, 2019, pages 193–202. IEEE, 2019.