

Planning and Synthesis Under Environment Specifications

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WhiteMech:

White-box Self Programming Mechanisms



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Planning and Synthesis Under Environment Specifications

- The agent assumes that its environment works according to certain specifications, and exploits these environment specifications in devising its strategies/plans.
- The planning domain (FOND) itself with its preconditions and effects is a typical form of environment specifications.
- Another common piece of environment specifications is to assume fairness conditions over nondeterministic effects.
- We can use LTL_f/LTL to specify environment specifications.

Problem


Solve the planning/synthesis for an agent goal *Goal*, expressed in LTL_f , under environment specifications *Env*, specified in LTL_f/LTL .

 Benjamin Aminof, Giuseppe De Giacomo, Aniello Murano, Sasha Rubin
Planning under LTL Environment Specifications.


ICAPS 2019

 Benjamin Aminof, Giuseppe De Giacomo, Aniello Murano, Sasha Rubin
Planning and Synthesis Under Assumptions.

CoRR abs/1807.06777 (on arXiv)

 Shufang Zhu, Giuseppe De Giacomo, Geguang Pu, Moshe Y. Vardi:
LTLf Synthesis with Fairness and Stability Assumptions.

AAAI 2020

 Giuseppe De Giacomo, Antonio Di Stasio, Moshe Y. Vardi, Shufang Zhu
Two-Stage Technique for LTLf Synthesis Under LTL Assumptions.

KR 2020