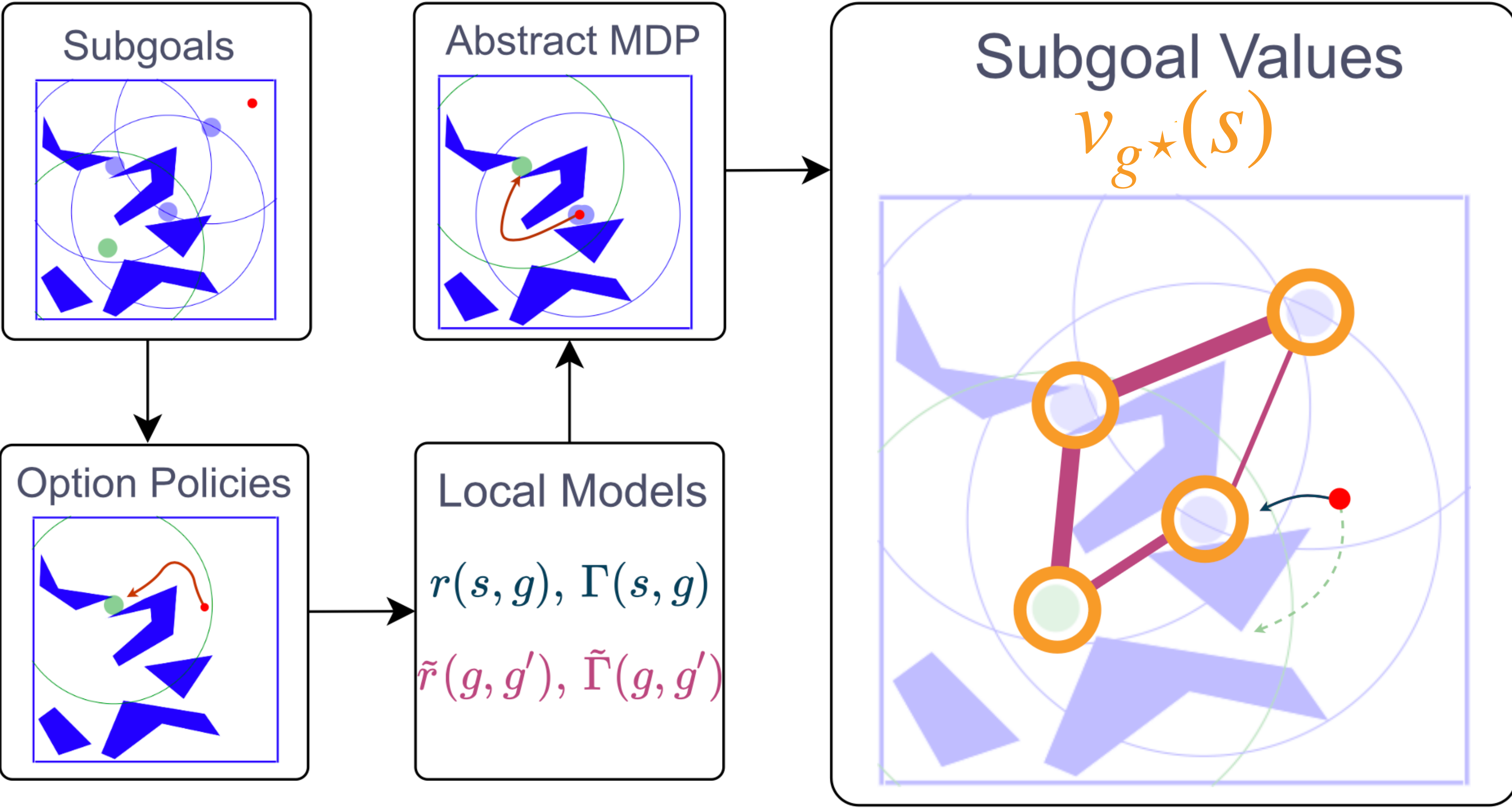
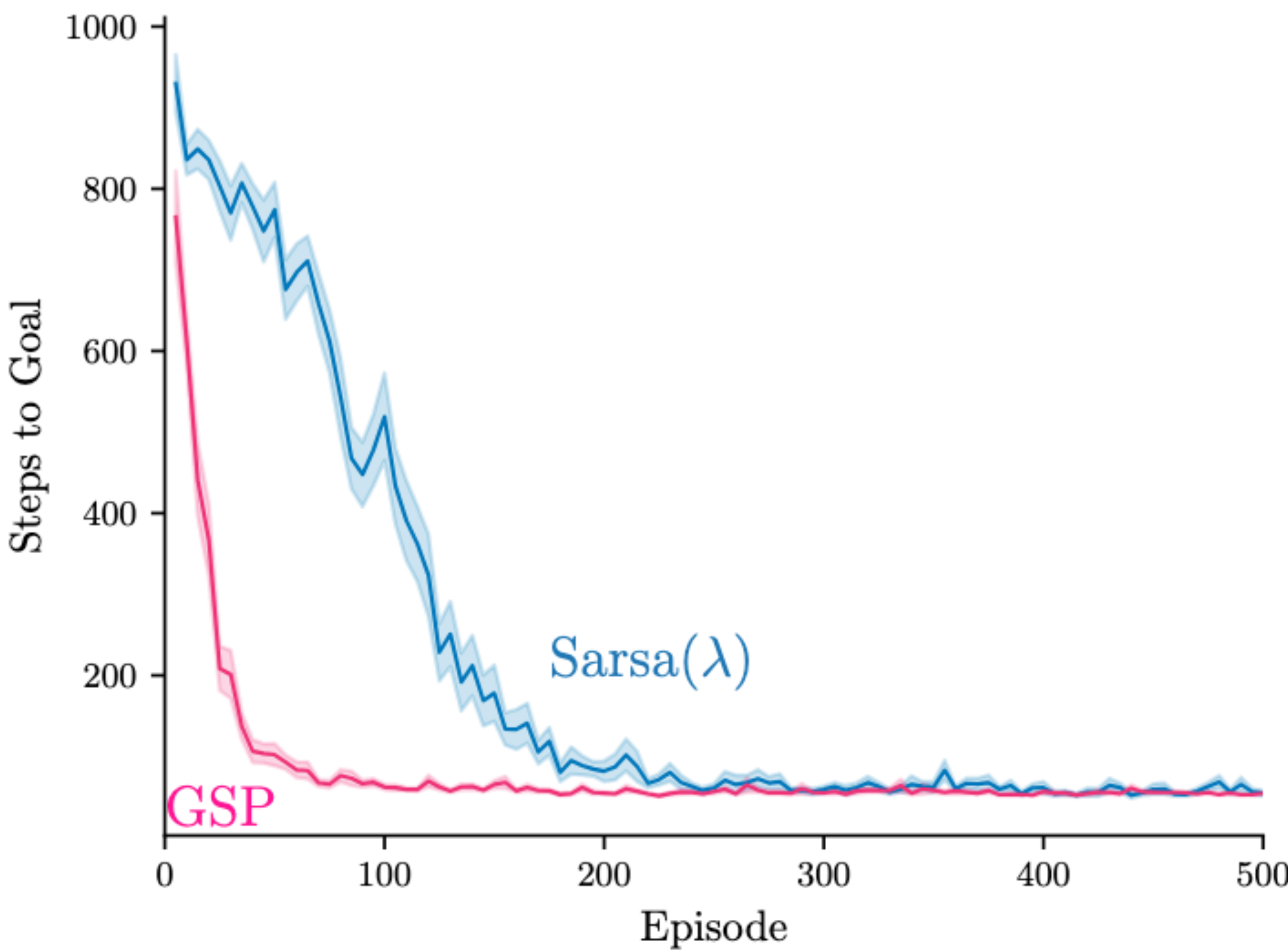


Planning in an Abstract Space



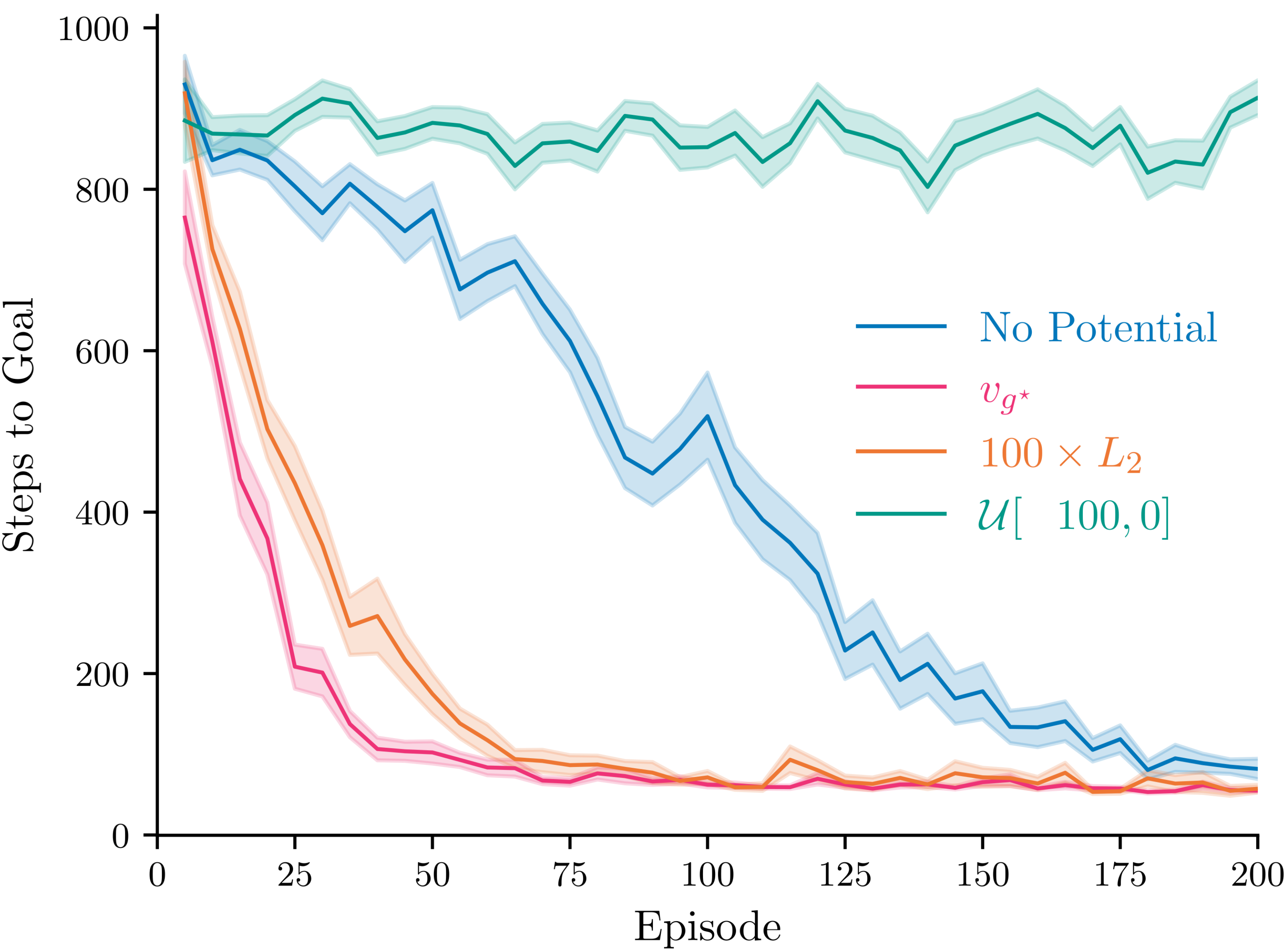
- Planning in large Markov Decision Processes (MDPs) is expensive.
- We construct an Abstract MDP of subgoals and options.
- We learn return and discounted probability models of these options.
- Perform value iteration in the abstract MDP and project values down to the original space for reward shaping.

Goal-Space Planning is Faster

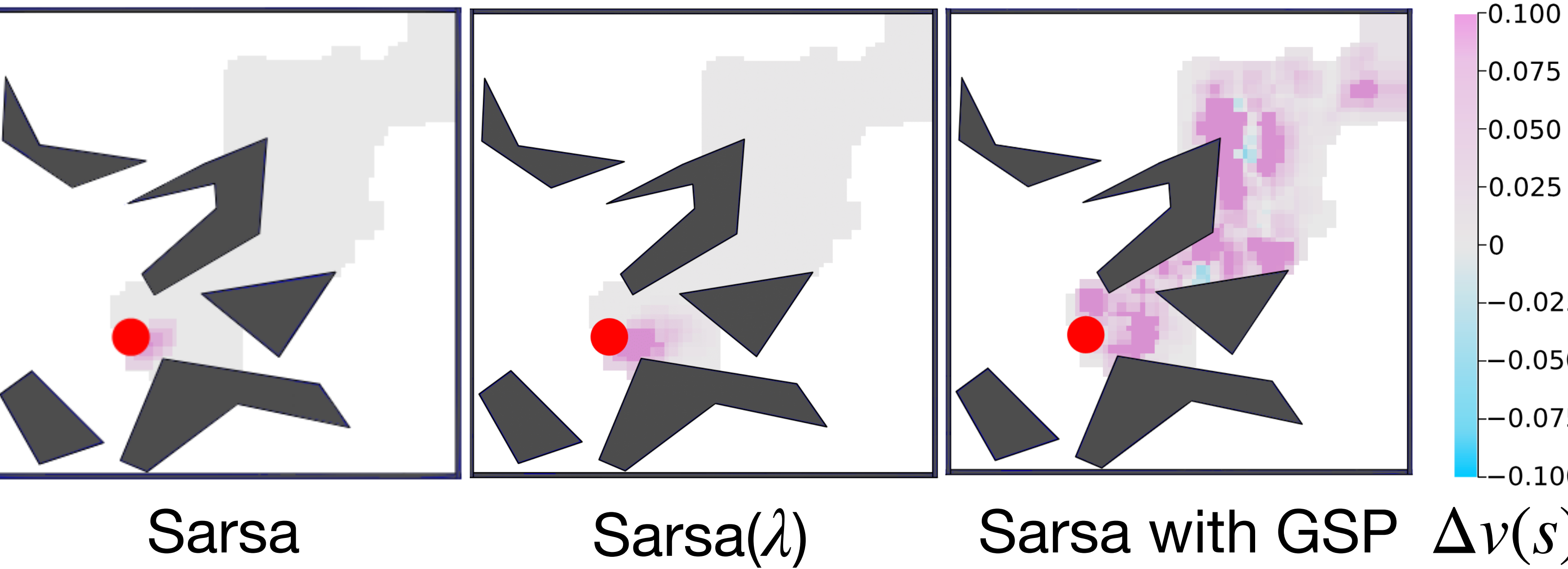


Abstract Models can be used for planning by reward shaping.

Shaping with World Models



GSP Propagates Value



Goal-Space Planning with Subgoal Models

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