The ability to only define the physics of an environment in classical planning tasks has been a long-standing obstacle in practical applications of such an approach. Current generic planners are typically capable of finding a solution to a given problem, but their inability to consider domain-specific constraints is often mirrored in a significant performance gap when compared to domain-specific algorithms. Remedying this gap would prove invaluable in making classical domain-independent planners viable in production environments.

In this paper, we will first introduce the area of classical planning and briefly touch on popular approaches to solving planning tasks. We will then show the principle of Attributed Transition-Based Domain Control Knowledge, which encodes additional problem-specific information into a domain. Finally, we will present our implementation along with experimental results.