

TODO

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Abstract. the Nested Rollout Policy Adaptation (NRPA) algorithm is a recursive tree exploration algorithm based on Monte-Carlo rollouts. It is very successful in particular for the game of Morpion Solitaire where it allowed the discovery of the current world record. In this paper, we propose an improvement of this algorithm based on the introduction of a new update function. This function updates the score of each move based on its previous results instead of focusing exclusively on the best sequence like the original one. We show that this improves the average results for Morpion Solitaire, in particular for a small number of search per level.

1 Introduction

2 Algorithm

2.1 Nested Rollout Policy Adaptation

2.2 Improved Nested Rollout Policy Adaptation

3 Experiments

3.1 Morpion Solitaire

3.2 Results

4 conclusion