



Computational Intelligence in Games

Emergence

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Agenda

- Dummy
- Dummy
- Dummy
- Dummy
- Dummy





Heuristic Agent I





Heuristic Agent II





Heuristic Agent III





Heuristic Agent IV





MCTS





MCTS Agent I





MCTS Agent II





EA





FAKULTÄT FÜR INFORMATIK

EA Agent I

DeltaScoreEvaluation function

$$s = \sum_{t=0}^{n} (H(s_t) - H(s_{t-1}))$$

is calculated by using the function

$$H(s_i, s_{i-1}) = \begin{cases} 10, & \text{if isWinner} \\ -10, & \text{if isLooser} \\ score(s_i) - score(s_{i-1}), & \text{otherwise.} \end{cases}$$





EA Agent II

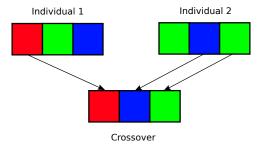


Figure: Crossover of an individual





EA Agent III

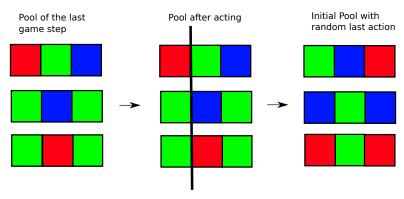


Figure: Sliding Window





Experiment Result I





Experiment Result II





Experiment Result III

Dummy





Development Process





Main Problems Difficulties





Conclusion & Future Work





Thank you for your attention!