



### **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





#### **EA Agent I**

DeltaScoreEvaluation function

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

is calculated by using the function

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





### **EA Agent II**

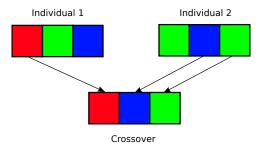


Figure: Crossover of an individual





### **EA Agent III**

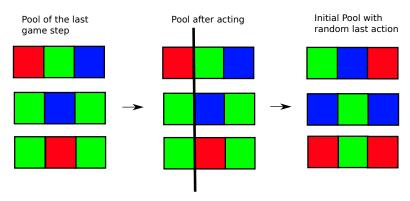


Figure: Sliding Window





## **Experiment Result I**





# **Experiment Result II**





# **Experiment Result III**





## **Development Process**

• Dummy





#### **Main Problems Difficulties**





#### **Conclusion & Future Work**





## Thank you for your attention!