**Tournament**

**[0,1,2,3,4,5,6,7,8]**

[321.0, 323.9999999999999, 321.1, 352.59999999999997, 359.69999999999993, 340.7, 352.49999999999994, 304.39999999999986, 345.6]

**[4,5,6,7,8]**

[200.0, 170.59999999999997, 199.5, 171.09999999999997, 200.0]

**Non Mutation Replication**

**[ALLC, ALLD, Random, GRIM, TFT, TTFT, TFTT, STFT, PAVLOV]**

**Average 100 Worlds with each world having 30 generations**

[13.86 0.0 0.12 5.84 414.3 22.99 55.13 0.0 487.7]

**One World**

**A close up of a map

Description automatically generated**

[85.0 0.0 3.0 192.0 223.0 91.0 209.0 7.0 189.0]

**Mutation GA**

**Reproduction only if saved enough for one day**

**Types of memory**

**A screenshot of a map

Description automatically generated**

**Instant reproduction if possible**

**M2\_2 > M2 > M1 (Surprising!!!) Knowing yourself and opp better than knowing 2 of opp last moves.**

**A close up of a map

Description automatically generated A picture containing screenshot

Description automatically generated** **A screenshot of a map

Description automatically generated** A screenshot of a map

Description automatically generated A screenshot of a map

Description automatically generated A screenshot of a map

Description automatically generated

**A close up of text on a white background

Description automatically generated**

**Problem : Too many parameters cannot learn fast enough.**

**Instant reproduction if possible**

**Problem : Too many parameters cannot learn fast enough. Hence possible that M1 better than M2 and M2\_2**

**Try : different types of Mutation rate:**

**Make it a parameter**

**Rate of mutation M2\_2, instant repro – no saving**

**A close up of text on a white background

Description automatically generated**

74 62 42 0 3 0

**[0.001,0.005,0.01,0.05,0.1,0.2]**

**How important is initial start?**

**A screenshot of a cell phone

Description automatically generated** A close up of a map

Description automatically generated**A close up of a map

Description automatically generated**

**Reproduction only if saved enough for one day M2\_2**

(make it a parameter)

Different types of Mutation rate:

**A picture containing text, map

Description automatically generated** **A picture containing text, map

Description automatically generated**A picture containing text, map

Description automatically generated

**A picture containing screenshot, map, text

Description automatically generatedA picture containing screenshot

Description automatically generated** **A picture containing screenshot, text, map

Description automatically generated**

**Total resources and initial number matter:**

A picture containing screenshot, map

Description automatically generated**A screenshot of a cell phone

Description automatically generatedA screenshot of a map

Description automatically generated** **A picture containing screenshot

Description automatically generated** A close up of a map

Description automatically generated

Do World to get average