**Distributed Q-Learning with Blobs**

Observations: Distance from other agents

Rewards: 1 – distance from agent X – distance from agent Y …

Global Reward: Summation of agent rewards

Global Max Expected Q: Summation of agent max expected Q-values

Use Q-Learning algorithm with global rewards and global max expected Q’s

**Results:**

Global Information:

Chart, line chart

Description automatically generatedChart, line chart

Description automatically generated

Agent 1 Average Rewards Agent 2 Average Rewards

Chart, line chart

Description automatically generated

Agent 3 Average Rewards

Distributed Information:

Chart, line chart

Description automatically generatedChart, line chart

Description automatically generated

Agent 1 Average Rewards Agent 2 Average Rewards

Chart, line chart

Description automatically generated

Agent 3 Average Rewards