

M2 陳野 由 Yu JINNO

From: Yokohama Hakuraku Sta.
Club activities: H.S) drama club
U) band circle

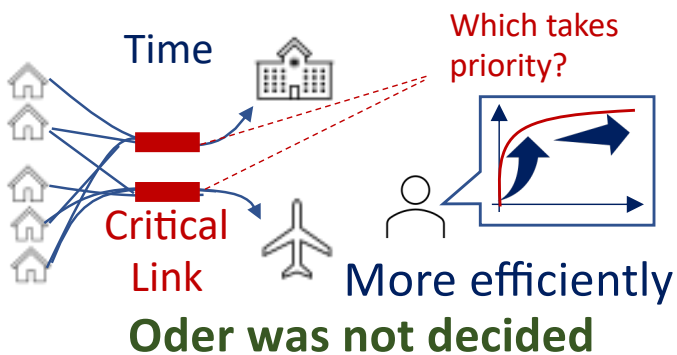
Hobby: Guitar & Karaoke Hot spring
Research: Disaster prevention, structure & distribution
Lab: B4;TUS Yaginuma Lab, M1~; Asakura Lab

Grad. Optimizing the **order of disaster-resistant maintenance of road networks** by applying **deep reinforcement learning**

Background & Problem

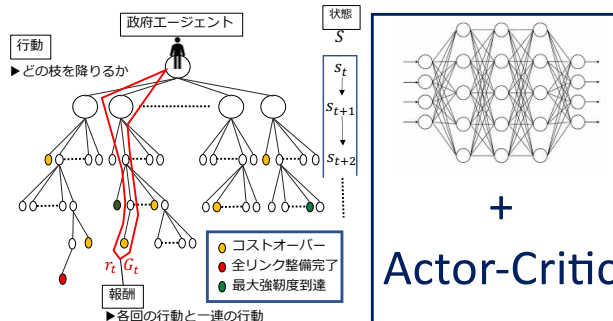


Network Vulnerabilities



Method

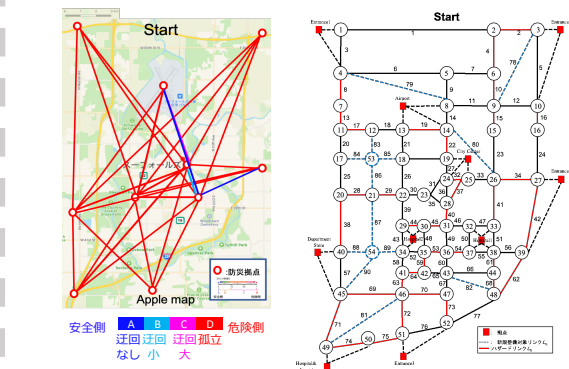
DRL(連続行動選択最適化)



Which route(actions) is best?

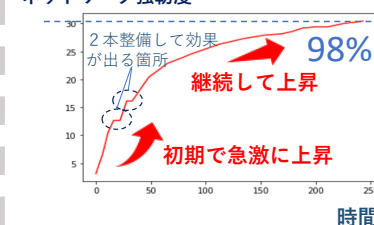
- ▶ Search efficiently(探索)
- ✓ Flexibility to change plans
- ✓ The most efficient order to anticipate the future

Result



Issue

- 評価軸
- 計算量



Determination of the optimal maintenance sequence

Master

Applying **Multi-Agent Deep Reinforcement Learning** to Optimal Network Allocation or Vehicle Patrol Optimization Problems in **Wide Area Evacuation**