

Optimizing paths in figure-8 task using reinforcement learning

Supervisor: Arnoud Visser

Martijn van der Veen

University of Amsterdam

June 23, 2011

1 Goal

2 Related Work

3 Approach

4 Results

5 Future Research

6 Summary

Learn path of figure-8 challenge using reinforcement learning for
aerial robot. TODO: plaatje imav

- Frequently used for testing (real) robots

- Figure-8 mostly used for ground robots
- Often using SLAM

TODO: aparte slides met plaatjes

- Train in simulation, use in real life
 - Unreal Tournament 2004 + USARSim
 - AR.Drone ported to Unreal by Nick Dijkshoorn
- Set initial force field
- Use different stages (crossed path)

Optimizing paths
in figure-8 task
using
reinforcement
learning

Martijn van der
Veen

Goal

Related Work

Approach

Results

Future Research

Summary

- localisatie: features of kaart? - imav

Questions?

