



IDALAB

EFFICIENT DATA ANALYTICS SOLUTIONS



PARIS
LODRON
UNIVERSITÄT
SALZBURG



FOR AIRPLANE

Experiments Overview

• ~~AAKE~~-10 magnets, varying the quad-strength

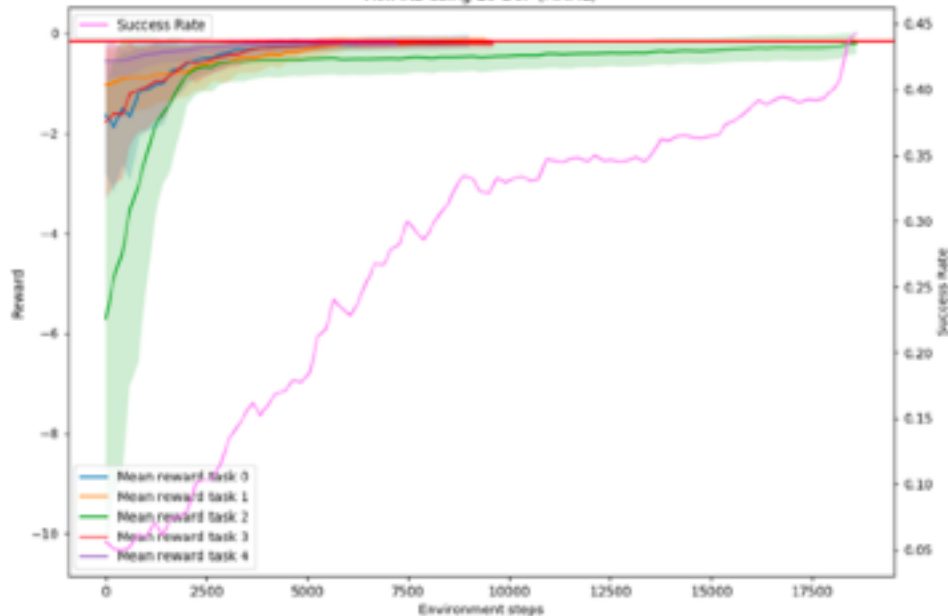
• using stable and numeric algorithm

- Adapt quickly to actual setting - few shot adaptation

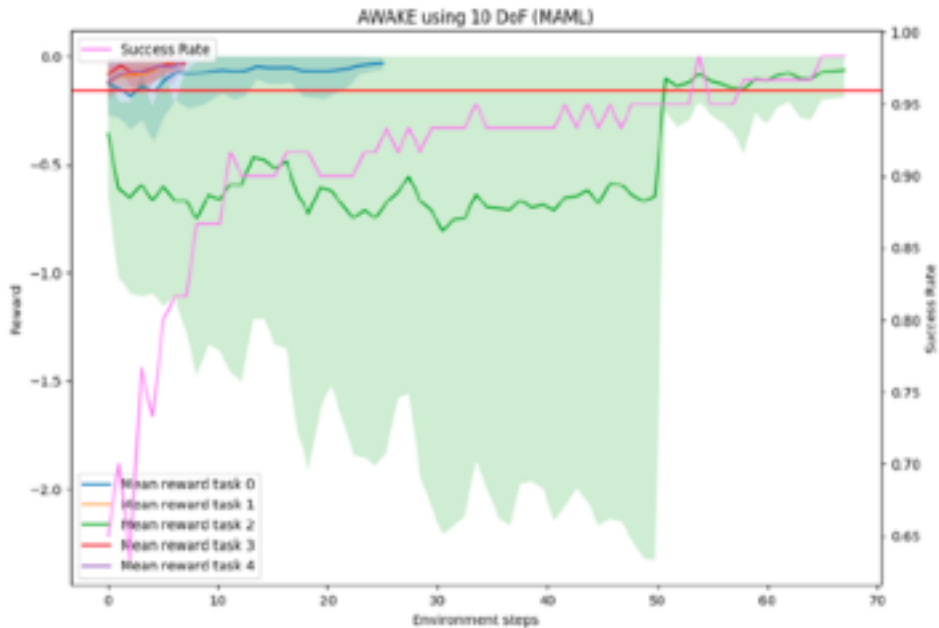
3

6

AWAKE using 10 DoF (MAML)



Untrained ~ 18000 samples 40% success



Meta-trained ~80 samples 100% success ~ **few steps on the machine**

Work with Lukas Lamminger Kain Verena

~ 100 iterations

> 1e6 iterations



Model-based

Off-policy

Q-learning

Actor-critic

On-policy

Policy gradient

Evolutionary/

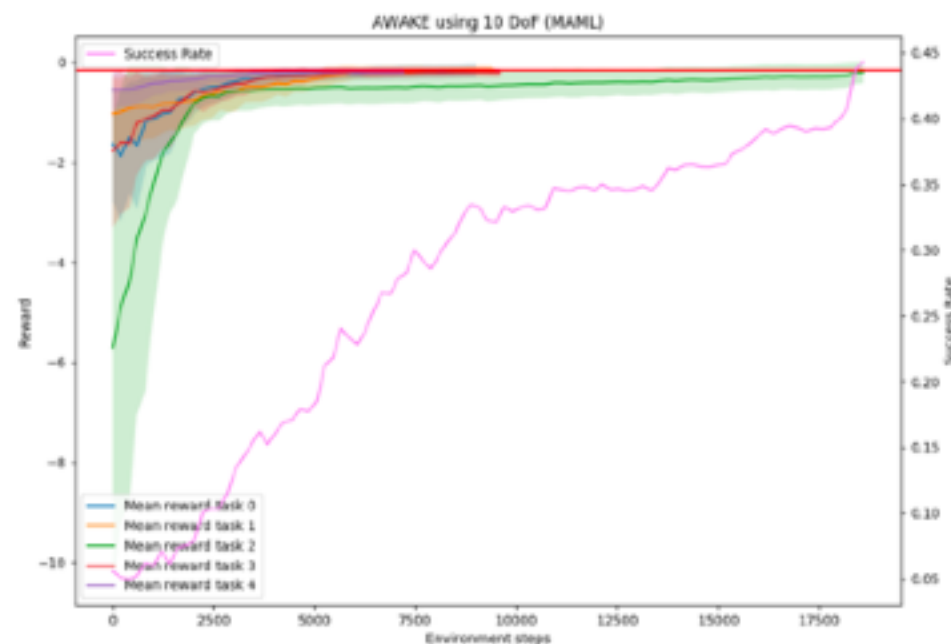
gradient free



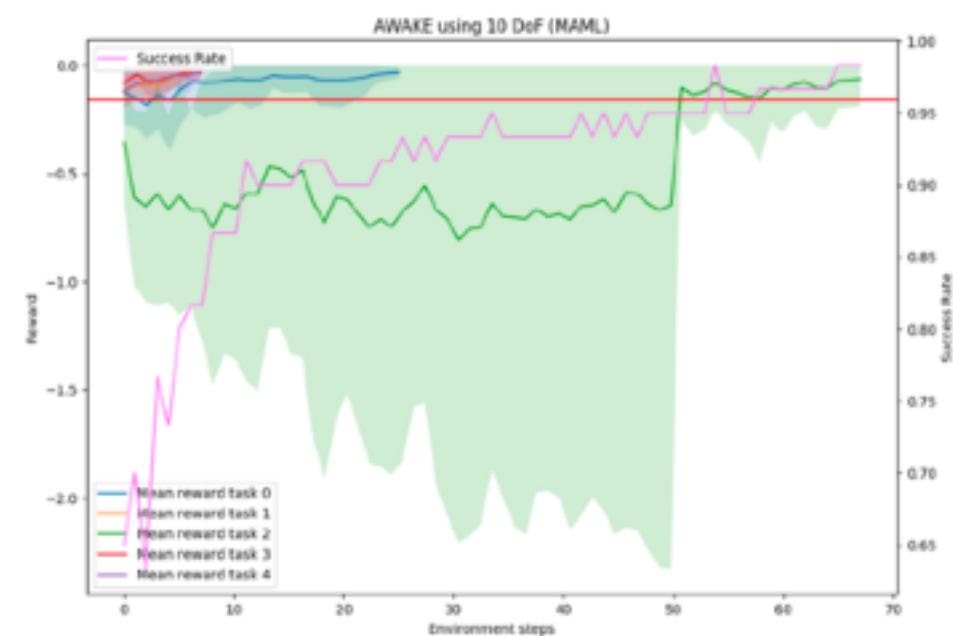
Demonstrated on the machine

Experiments Overview

- AWAKE - 10 magnets, varying the quad-strengths
- Using a stable and monotonic algorithm
- Adapt quickly to actual setting - few shot adaption



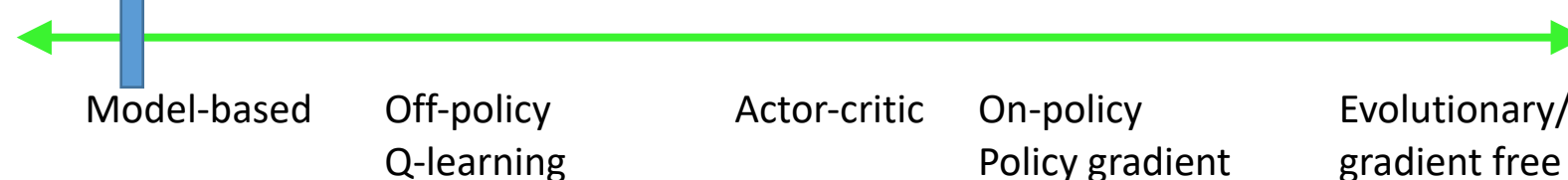
Untrained ~ 18000 samples 40% success



Meta-trained ~80 samples 100% success ~ **few steps on the machine**

~ 100 iterations

> 1e6 iterations



Demonstrated on the machine

Work with Lukas Lamminger Kain Verena
Simon Hirländer

Part II: safe shallow model-based RL