

# Two really cool concepts at the boundary of RL

## Part I - Meta RL

Simulation-based RL

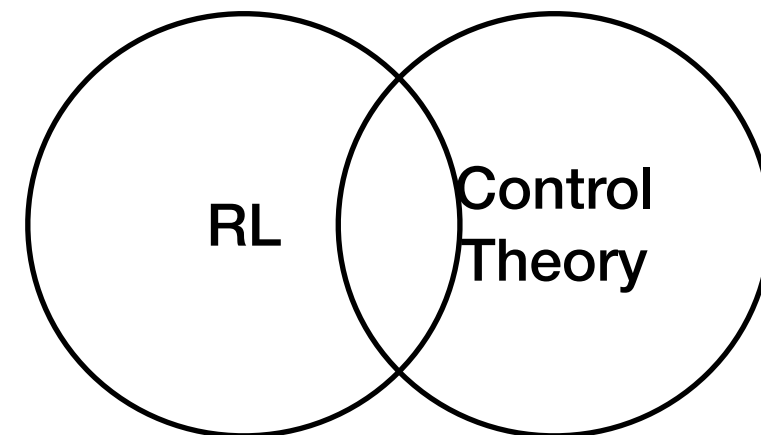


Adapt to real world

- Meta RL
- Adapts quickly to changes
- Brings nice properties

## Part II: safe shallow model-based RL

Direct RL



RL towards control theory - the BO of RL

# Optimisation

- Optimisation has become a standard tool in the control room:
  - ➔ Fast adaption from scratch
  - ➔ Easy to tune with short exploration
  - ➔ It is not RL - optimisation is greedy
- RL has potential to solve a much broader range of problems:
  - ➔ Incorporates state information - if trained, much faster than optimization
  - ➔ Can handle delayed consequences
  - ➔ Policy might be faster and easier to calculate and implement