

# Inverse Reinforcement Learning of Flocking Behaviour

Bird flocking illustrates the power of swarm intelligence:

- ▶ rapid reaction and synchronization
- ▶ without complex decision making or communication



Behavior can be imitated using three basic rules:

- ▶ nearby repulsion, distant attraction and alignment

But there is more to it! (e.g. hierarchies)

We want to employ IRL in order to

- ▶ learn reward function on real data (summer term)
- ▶ imitate behaviour on our Kilobot swarm (winter term)

