

FCAI

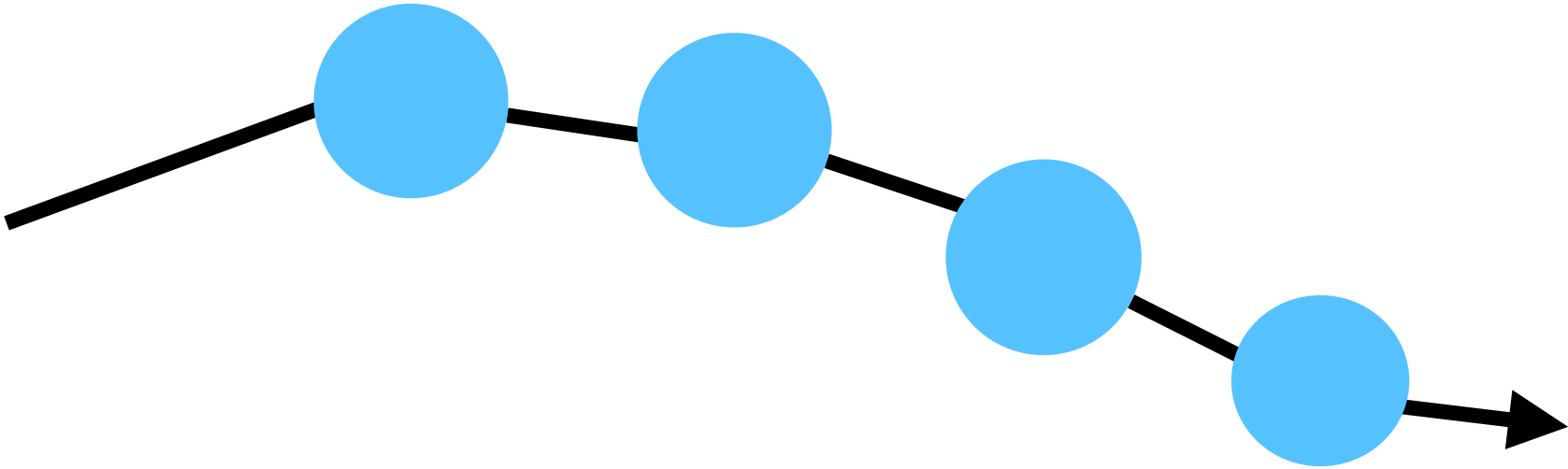
fcai.fi

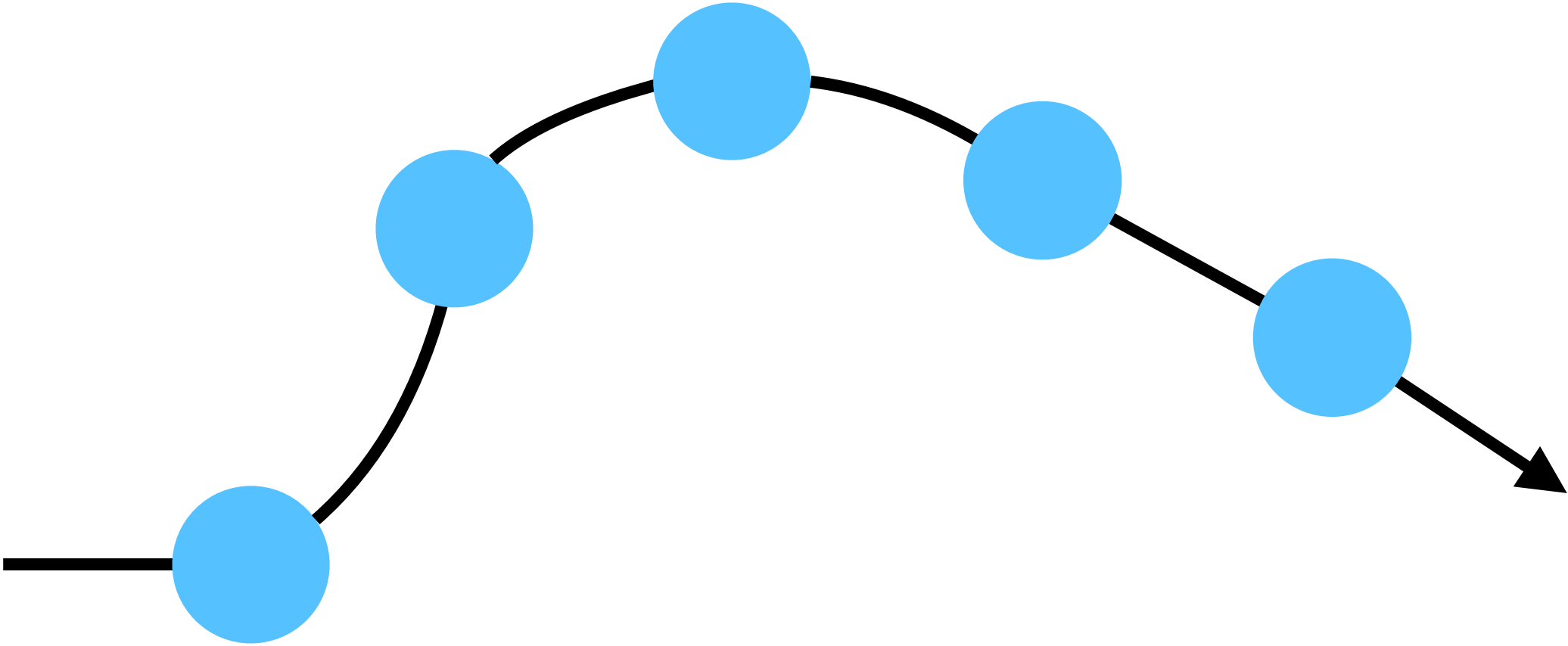
Decision-time Planning

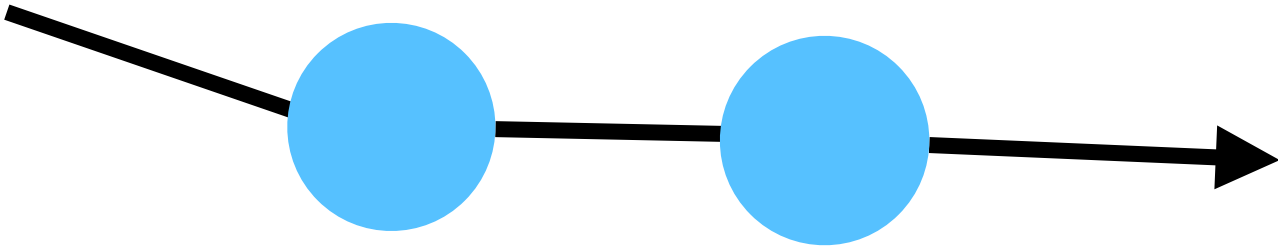
Model Predictive Control (MPC)

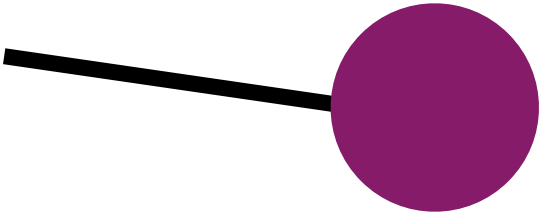


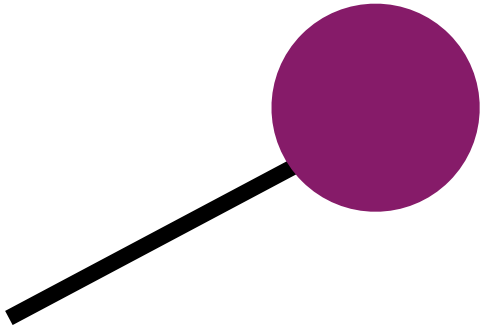


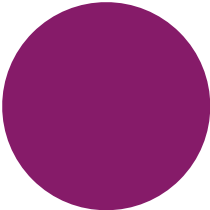












Diverged from planned trajectory...

Discard a_1, \dots, a_H

Sole's rep plan.



Andson.

Frontend environment step

Observe states

Plan $a_{0:H}$ to maximise return $\sum_{t=0}^{H-1} \gamma^t r(s_t, a_t) + \gamma^H Q_\theta(s_H, a_H)$

Execute a_0 and discard a_1, \dots, a_H

Model Predictive Path Integral Control (MPPI)



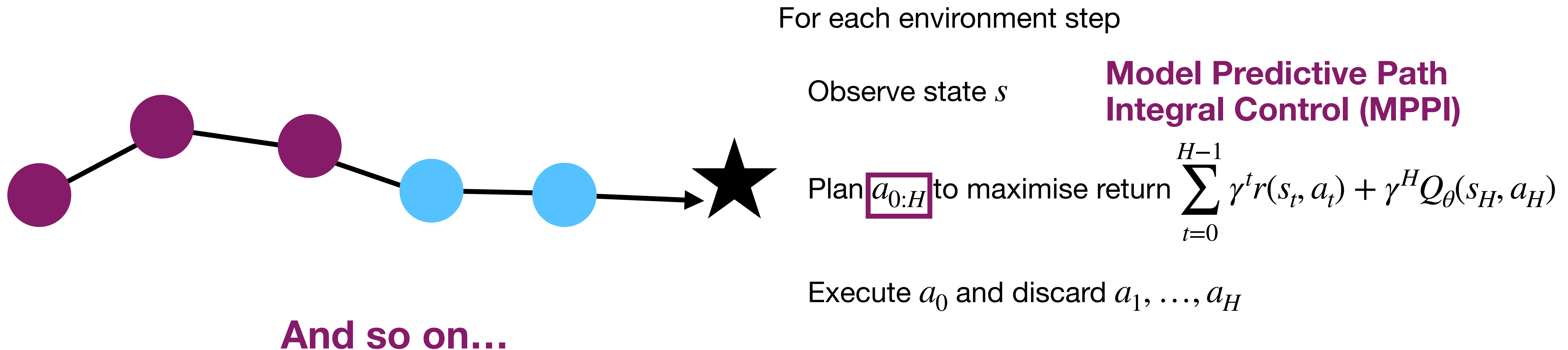
Diverged from planned trajectory...

Discard a_1, \dots, a_H

So let's replan.

Decision-time Planning

Model Predictive Control (MPC)



DCWM: Decision-time Planning