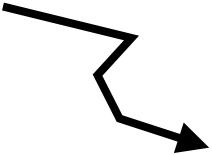
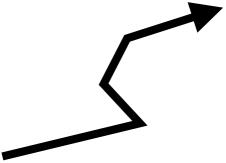
FCAI fcai.fi



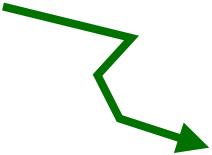


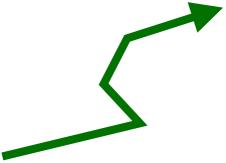














Iteration 2





DCWM: Decision-time Planning

Model Predictive Path Integral Control (MPPI)

Initialise action sampling distribution $\{a_t \sim \mathcal{N}(\mu_t, \sigma_t^2)\}_{t=0}^H$

For each iteration

Evaluate objective $J(\mathbf{a}_{0\cdot H}^i,\mathbf{s})$ for each sample

Sample N action sequences $\{a_{0:H}^i\}_{i=1}^N$

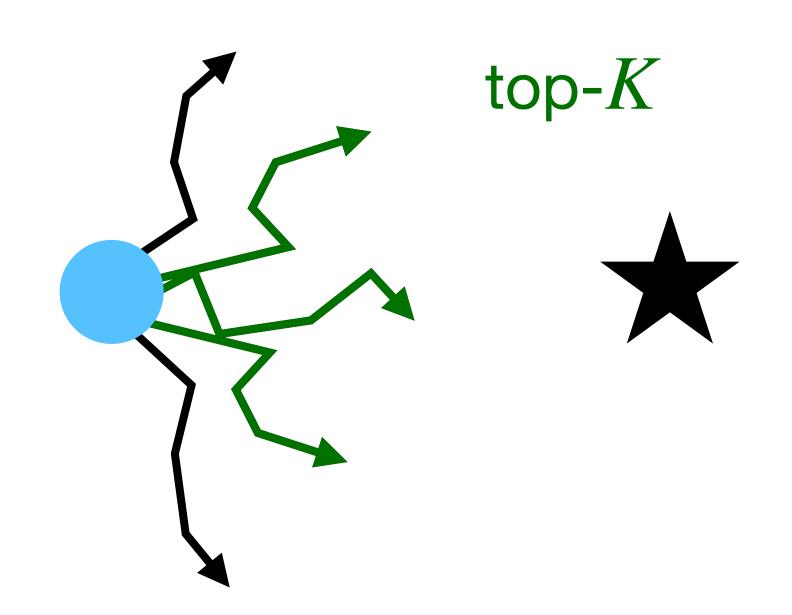
Select top K performing samples

Update action distribution parameters $\{\mu_t, \sigma_t^2\}_{t=0}^H$

DCWM: Decision-time Planning

Model Predictive Path Integral Control (MPPI)

Iteration 2



Initialise action sampling distribution $\{a_t \sim \mathcal{N}(\mu_t, \sigma_t^2)\}_{t=0}^H$

For each iteration

Sample N action sequences $\{a_{0:H}^i\}_{i=1}^N$

Evaluate objective $J(\mathbf{a}_{0:H}^i, \mathbf{s})$ for each sample

Select top K performing samples

Update action distribution parameters $\{\mu_t, \sigma_t^2\}_{t=0}^H$

DCWM: Decision-time Planning

Model Predictive Path Integral Control (MPPI)

Iteration 3



For each iteration

Sample N action sequences $\{a_{0:H}^i\}_{i=1}^N$

Evaluate objective $J(\mathbf{a}_{0:H}^i, \mathbf{s})$ for each sample

Select top K performing samples

Update action distribution parameters $\{\mu_t, \sigma_t^2\}_{t=0}^H$



