Name	Description	Properties	Usefulness (subjective)
Certainty Equivalence	Control as if the mean (or median or mode) is the true state	Optimal for LQG	★★★★★
QMDP	Full observability after 1 step (hindsight knowledge of state uncertainty)	Upper bound on true value	★★★★★
Hindsight Optimization	Hindsight knowledge of state and outcome uncertainty	Looser upper bound than QMDP	★★★★☆
Fast Informed Bound (FIB)	Take one observation into account	Tighter upper bound than QMDP	★★☆☆☆
k-Markov	Pretend the last k observations make up the state and solve the MDP	Great for Atari!	★★★★☆
Open Loop	Choose a sequence of actions that optimizes the objective in expectation	Good if alleatory is low, epistemic is hard to reduce	★★★☆☆
Most likely observation	Plan assuming $b' = \tau(b, a, \hat{o}(b))$	No observation branching; Good when Z unimodal	★★★☆☆