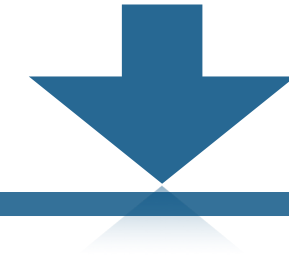
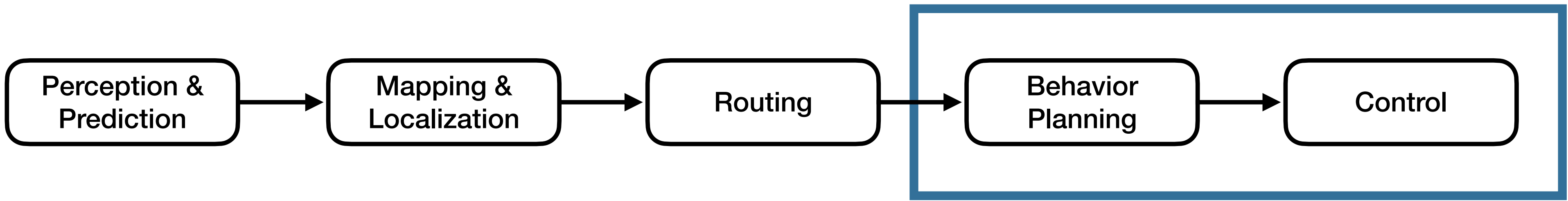
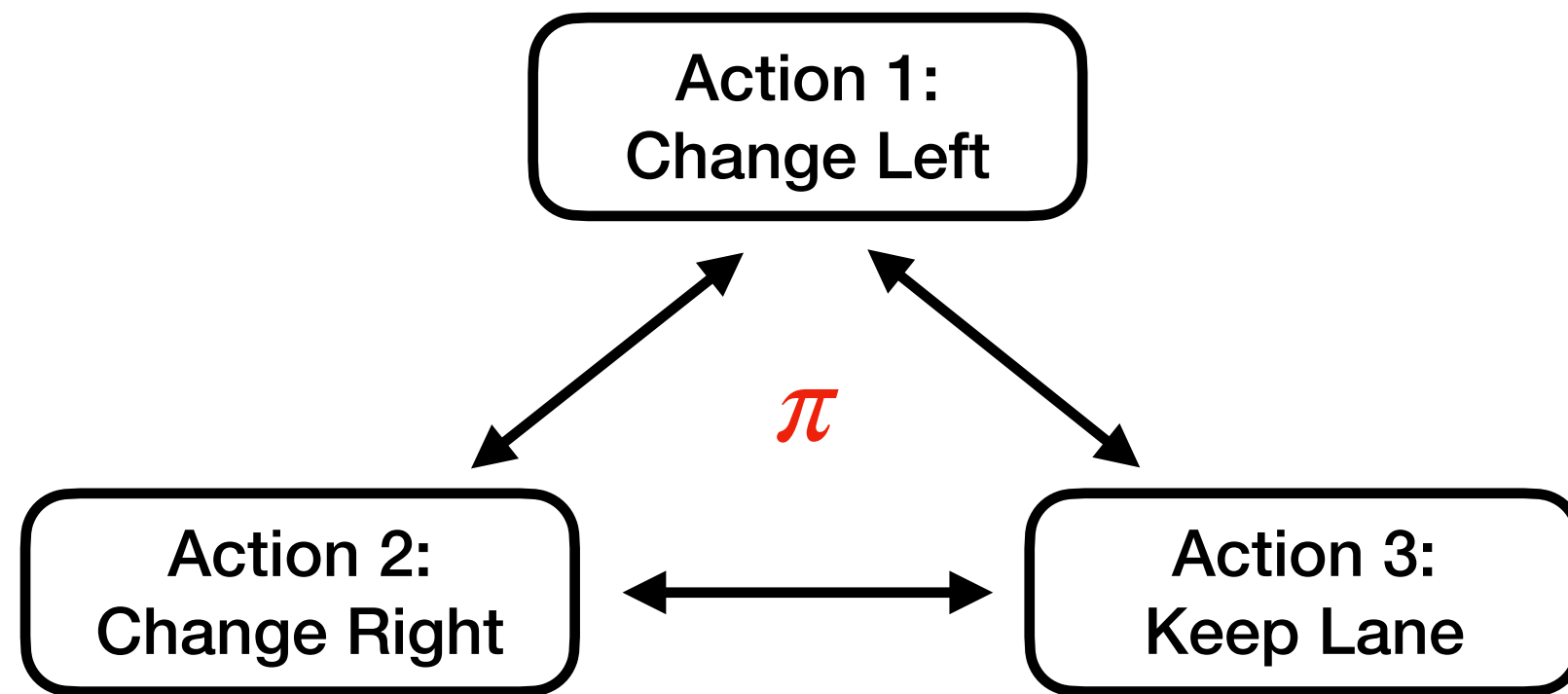


System Modeling



Behavior Planning



Goal: find a policy π to select an action (from action 1, 2, 3) for the vehicle

Frequency 1

Control

Frequency 2

Change Left: $x_{t+1} = f_1(x_t) + g_1(x_t)u_t + w_t$

Change Right: $x_{t+1} = f_2(x_t) + g_2(x_t)u_t + w_t$

Keep Lane: $x_{t+1} = f_3(x_t) + g_3(x_t)u_t + w_t$

Goal: given the action i selected by the policy π , find control inputs u_t to execute the given action