

Evaluation of
Reference
policy

Define the reference policy Π by **Policy 1**

Evaluate the approximate value function $\{W^\Pi(\mathcal{S}_t) | \forall \mathcal{S}_t\}$
analytically by **Theorem 1**

Geometric channel
model of mmWave

Positions of ambient
reflectors

Real-time location of
the mobile blocker

Approximate the optimal value function $\{W(\mathcal{S}_t) | \forall \mathcal{S}_t\}$
with the approximate optimal policy by $\{W^\Pi(\mathcal{S}_t) | \forall \mathcal{S}_t\}$, then
perform one-step policy iteration by solving **P2**

Scheduling with
approximate
value function

Decouple and decompose **P2**
into $\{\text{P2.1}(n, k) | \forall k\}$, $\{\text{P2.2}(n, k) | \forall k\}$ and $\text{P2.3}(n)$

Alternatively optimize the abovementioned subproblems
via n iterations and derive the proposed policy $\Psi^{(n)}$