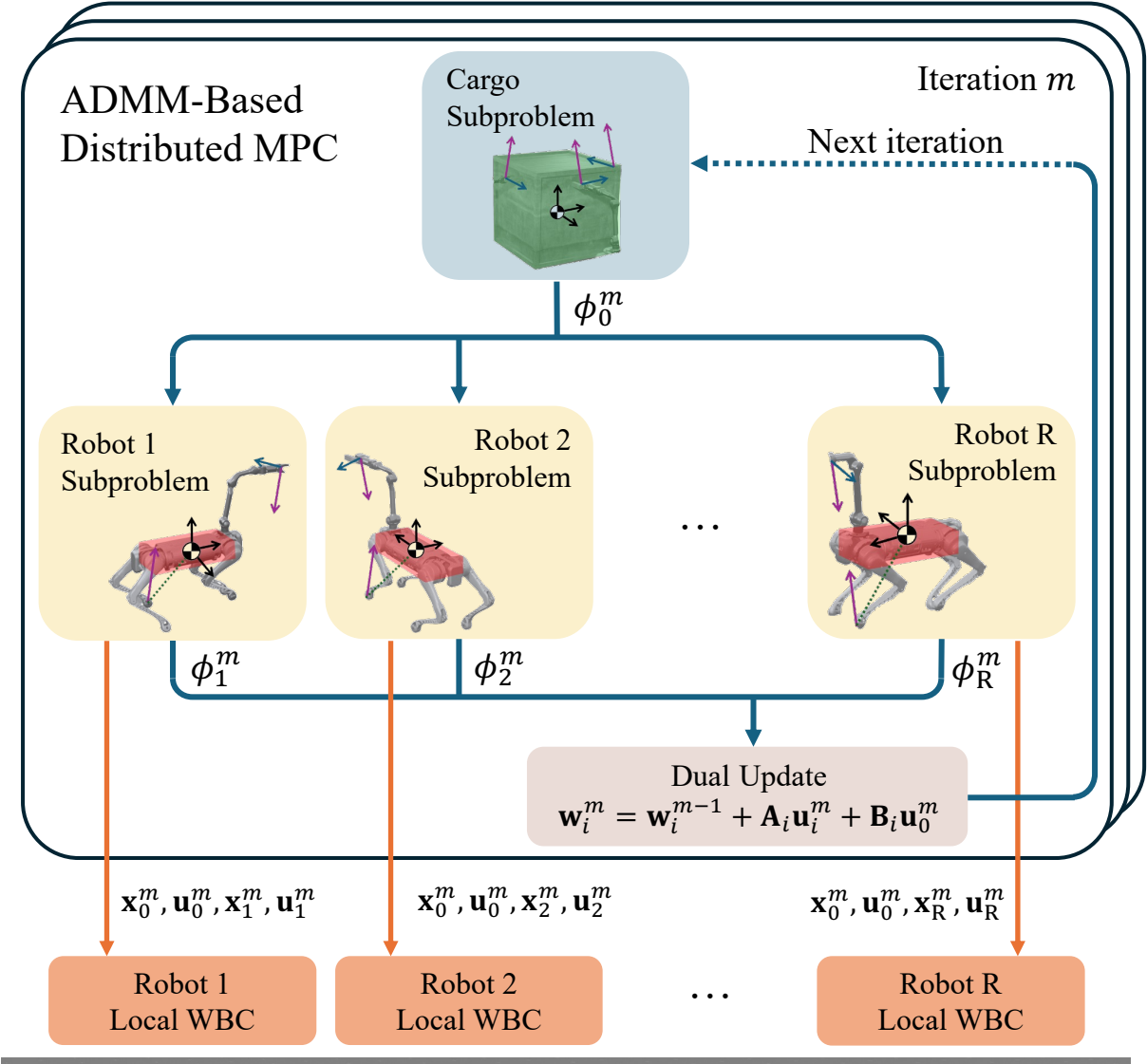
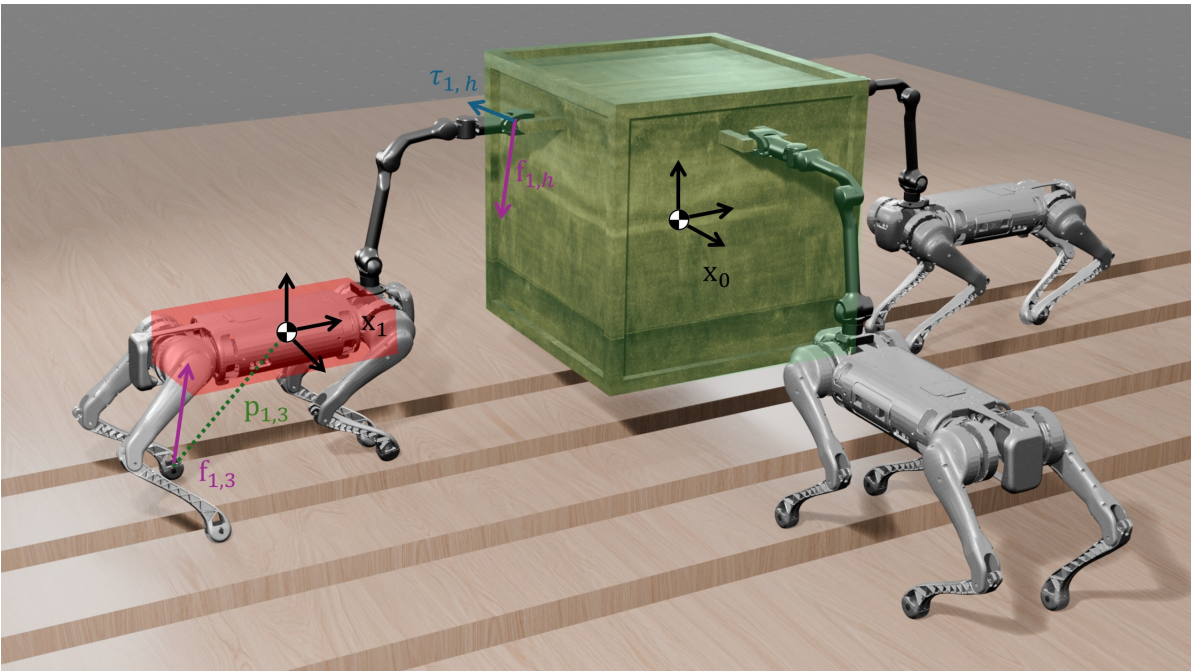

ADMM-Based
Distributed MPC
Cargo
Subproblem
Iteration m
Next iteration
ϕ_0^m
Robot 1
Subproblem
Robot 2
Subproblem
...
Robot R
Subproblem
ϕ_1^m
ϕ_2^m
ϕ_R^m
Dual Update
$\mathbf{w}_i^m = \mathbf{w}_i^{m-1} + \mathbf{A}_i\mathbf{u}_i^m + \mathbf{B}_i\mathbf{u}_0^m$
$\mathbf{x}_0^m, \mathbf{u}_0^m, \mathbf{x}_1^m, \mathbf{u}_1^m$
$\mathbf{x}_0^m, \mathbf{u}_0^m, \mathbf{x}_2^m, \mathbf{u}_2^m$
$\mathbf{x}_0^m, \mathbf{u}_0^m, \mathbf{x}_R^m, \mathbf{u}_R^m$
Robot 1
Local WBC
Robot 2
Local WBC
...
Robot R
Local WBC


$\tau_{1,h}$
$f_{1,h}$
x_0
x_1
$p_{1,3}$
$f_{1,3}$