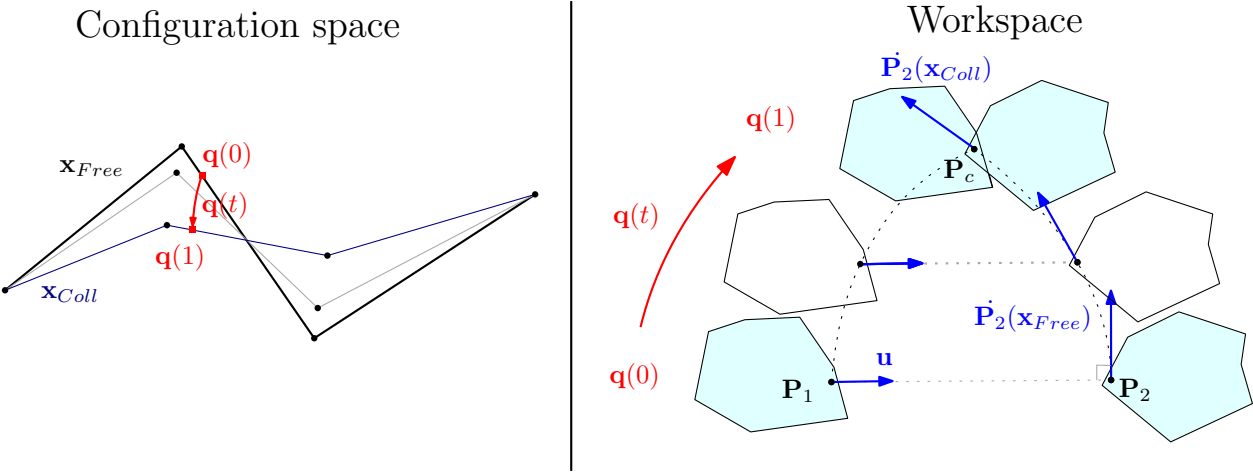
Configuration space
$\mathbf{x}_{Free}$
$\mathbf{q}(0)$
$\mathbf{q}(t)$
$\mathbf{q}(1)$
$\mathbf{x}_{Coll}$
Workspace
$\dot{\mathbf{P}}_2(\mathbf{x}_{Coll})$
$\mathbf{q}(1)$
$\mathbf{P}_c$
$\mathbf{q}(t)$
$\dot{\mathbf{P}}_2(\mathbf{x}_{Free})$
$\mathbf{u}$
$\mathbf{q}(0)$
$\mathbf{P}_1$
$\mathbf{P}_2$