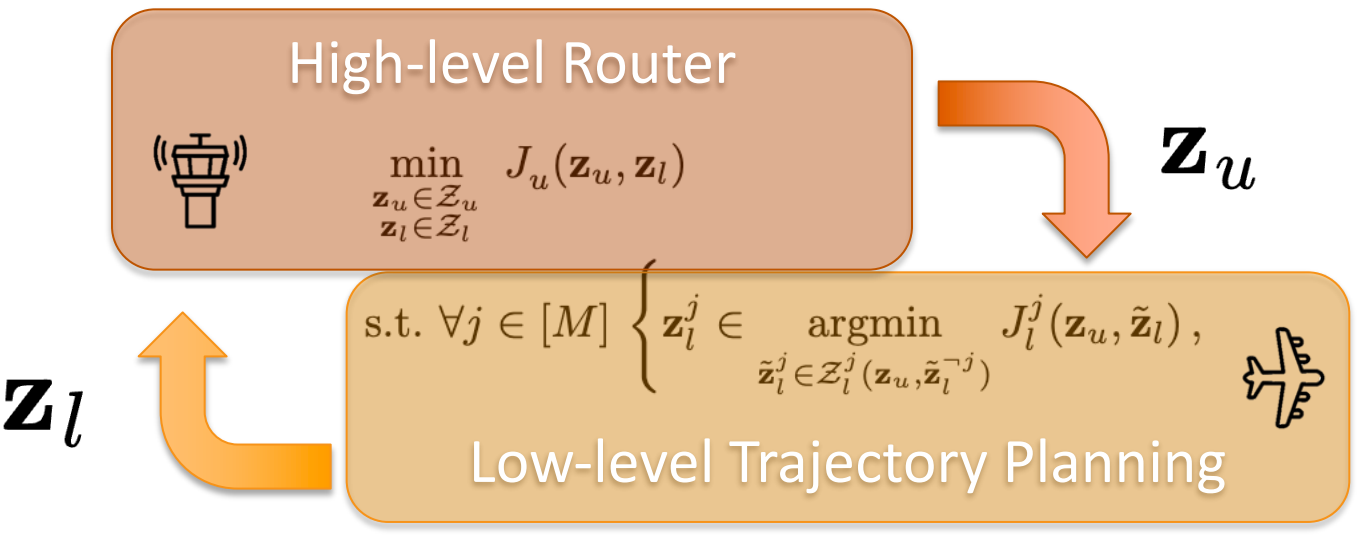

High-level Router
$\min_{\substack{\mathbf{z}_u \in \mathcal{Z}_u \\ \mathbf{z}_l \in \mathcal{Z}_l}} \; J_u(\mathbf{z}_u, \mathbf{z}_l)$
$\mathbf{z}_u$
s.t. $\forall j \in [M]$ $\mathbf{z}_l^j \in \underset{\tilde{\mathbf{z}}_l^j \in \mathcal{Z}_l^j(\mathbf{z}_u, \tilde{\mathbf{z}}_l^{\neg j})}{\operatorname{argmin}} \; J_l^j(\mathbf{z}_u, \tilde{\mathbf{z}}_l)$,
Low-level Trajectory Planning
$\mathbf{z}_l$