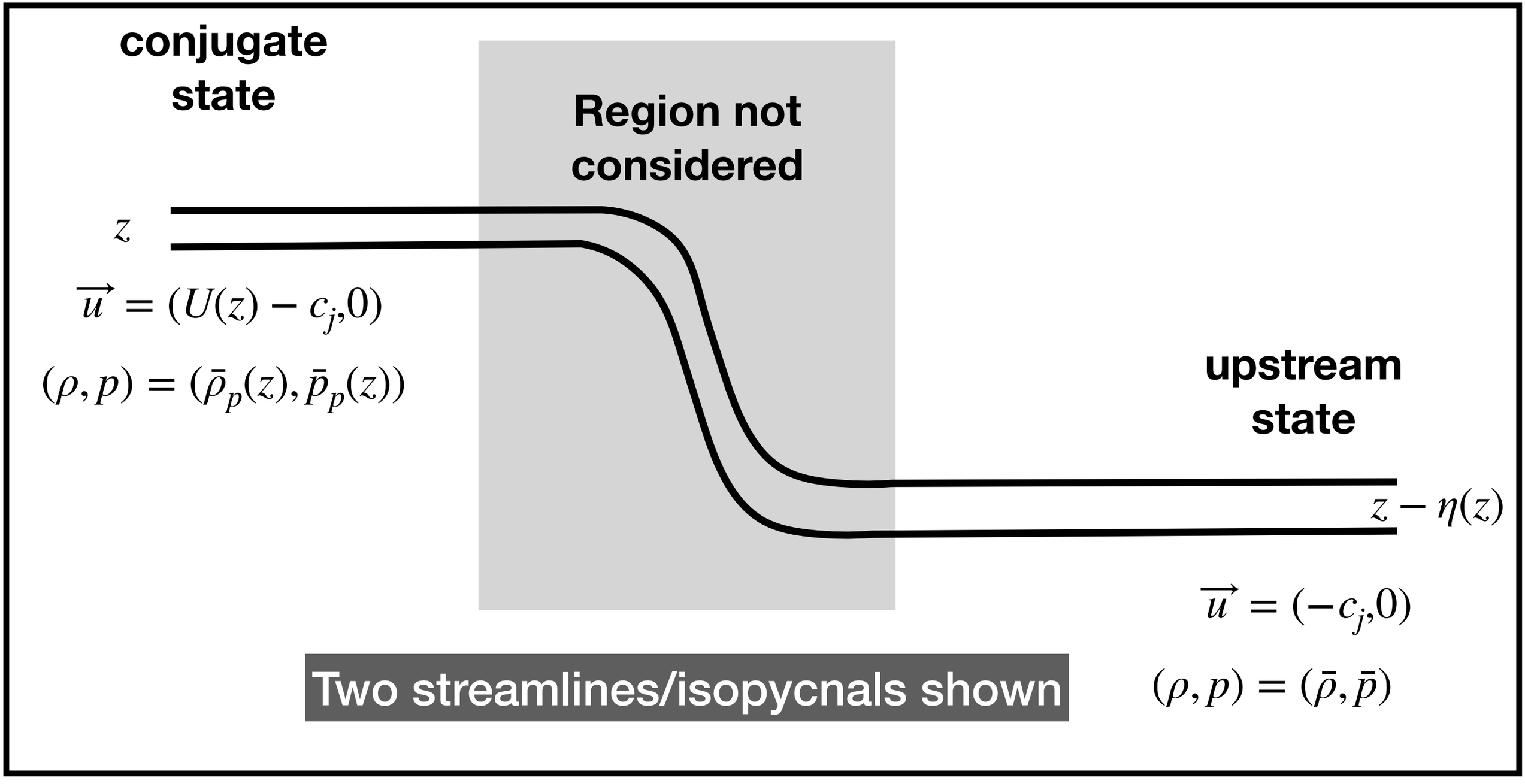
conjugate state
Region not considered
z
$\overrightarrow{u} = (U(z) - c_j, 0)$
$(\rho, p) = (\bar{\rho}_p(z), \bar{p}_p(z))$
upstream state
$z - \eta(z)$
$\overrightarrow{u} = (-c_j, 0)$
$(\rho, p) = (\bar{\rho}, \bar{p})$
Two streamlines/isopycnals shown