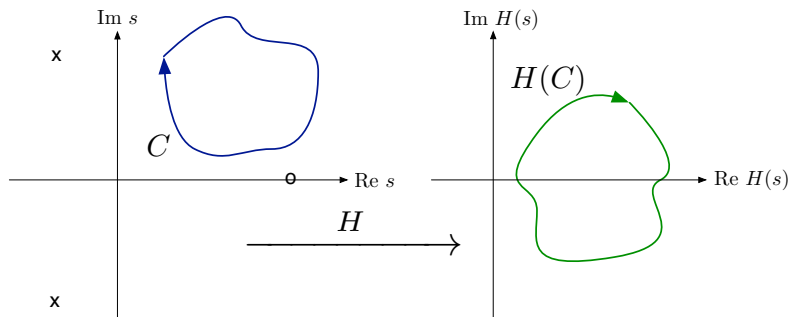


Case 3: Contour Encircles No Poles or Zeros



How does $\angle H(s)$ change as we go around C ?

Let's see what happens to angles from s to poles/zeros of H :

- ▶ $\varphi_1, \varphi_2, \psi_1$ all return to their original values
- ▶ therefore, no net change in $\angle H(s)$, so $H(C)$ does not encircle the origin