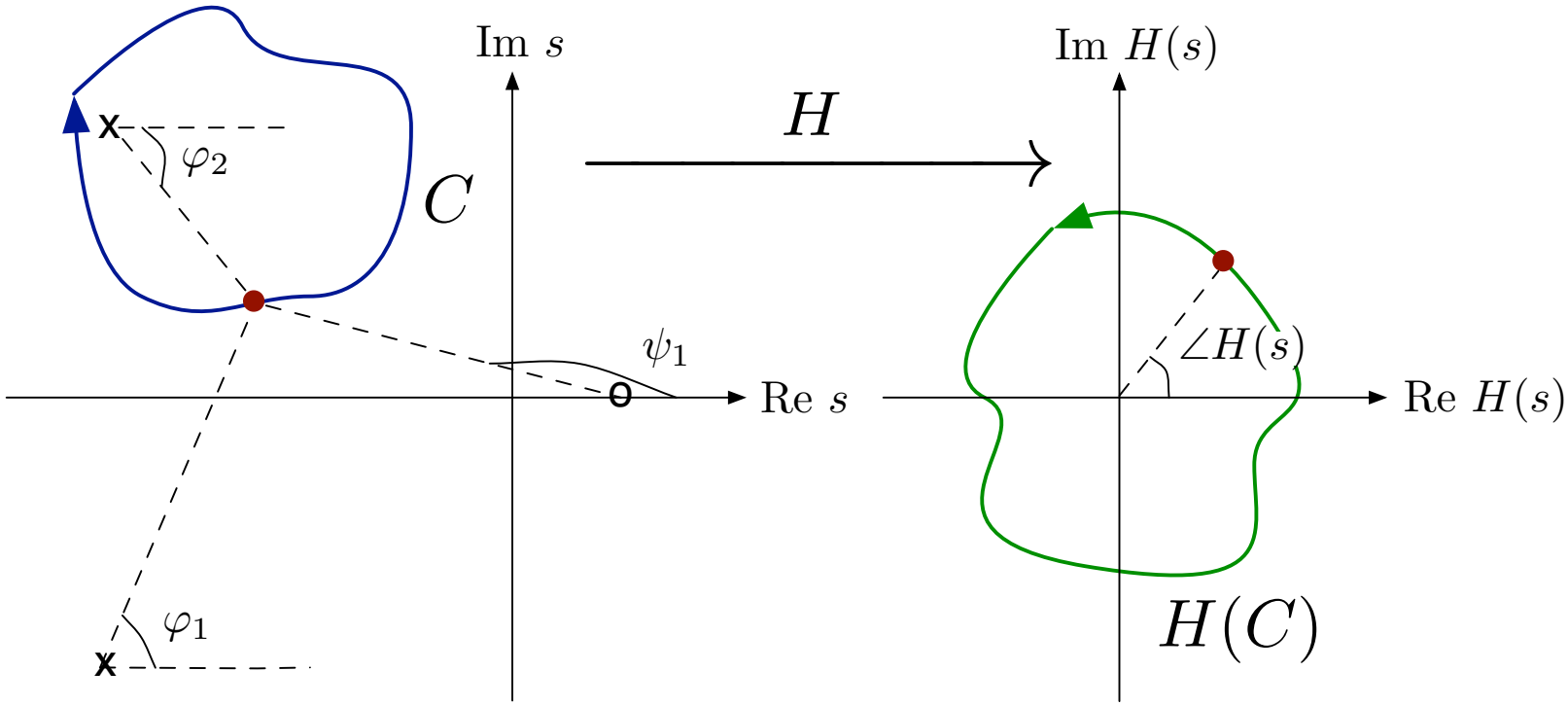
Case 2: Contour Encircles a Pole



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:

- φ_1 and ψ_1 return to their original values
- φ_2 picks up a net change of $-360°$
- therefore, $\angle H(s)$ picks up a net change of $360°$, so $H(C)$ encircles the origin once counterclockwise (↺)