QPE Discrimination on 8-cycle: N=8, s=3, Δ(P)=0.785
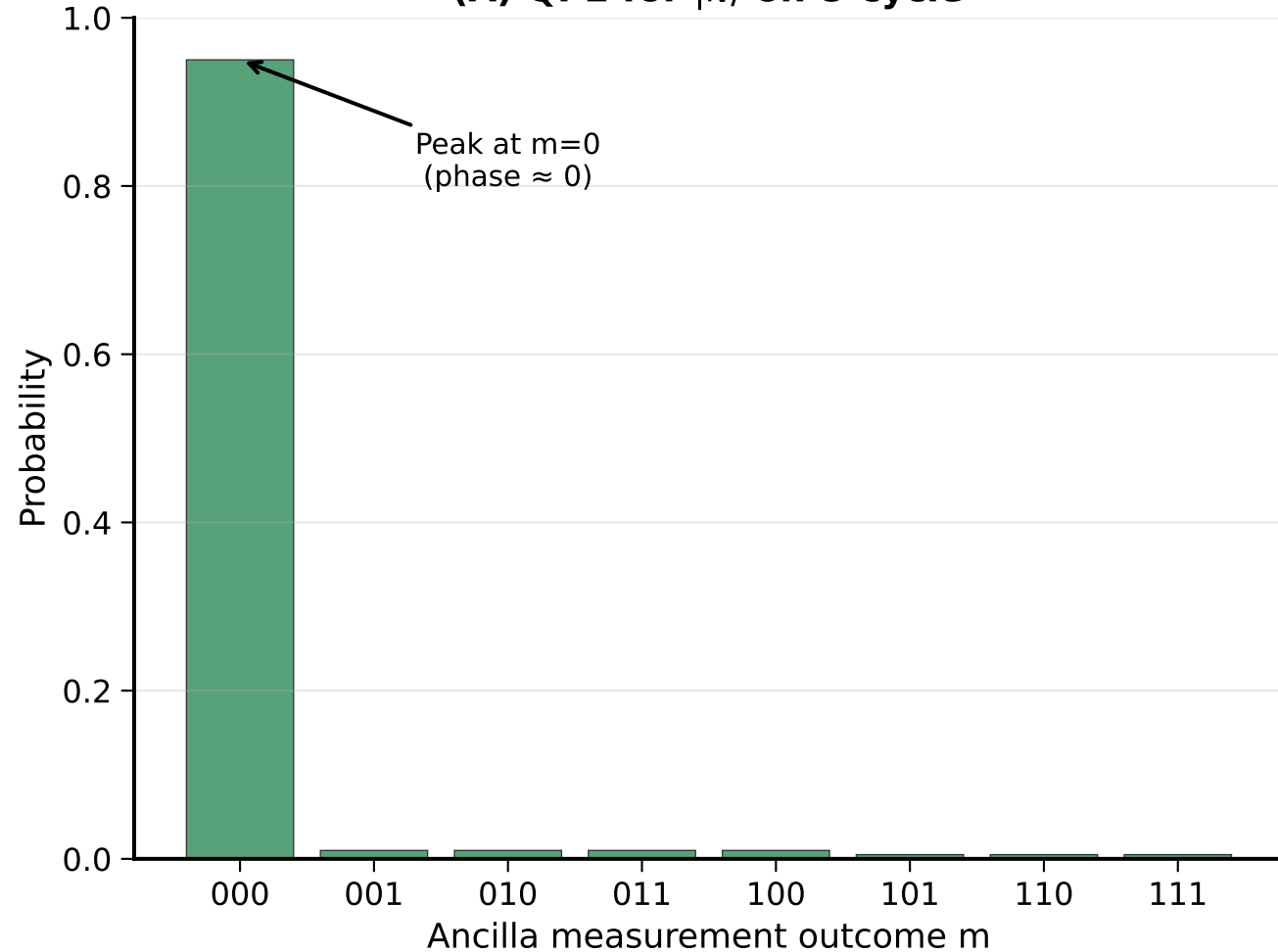
(A) QPE for $|\pi\rangle$ on 8-cycle

(B) QPE for $|\psi_j\rangle$ on 8-cycle

Peak at m=0
(phase ≈ 0)

Peak at m=1
(phase ≈ 0.125)

Probability

Ancilla measurement outcome m