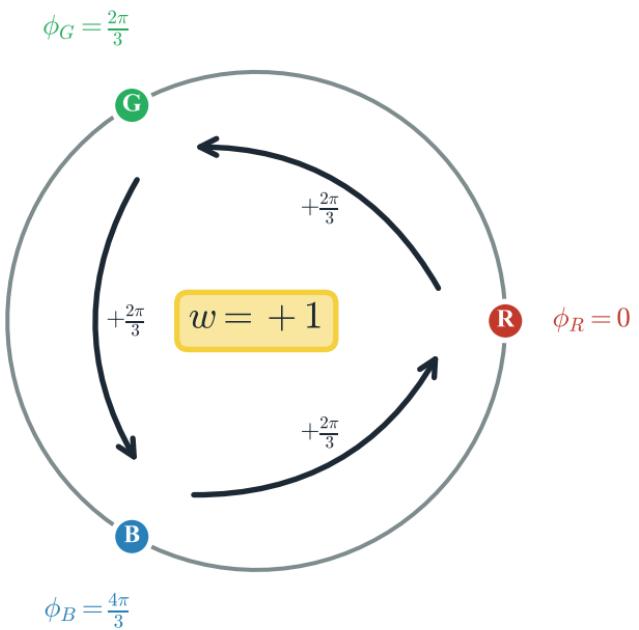
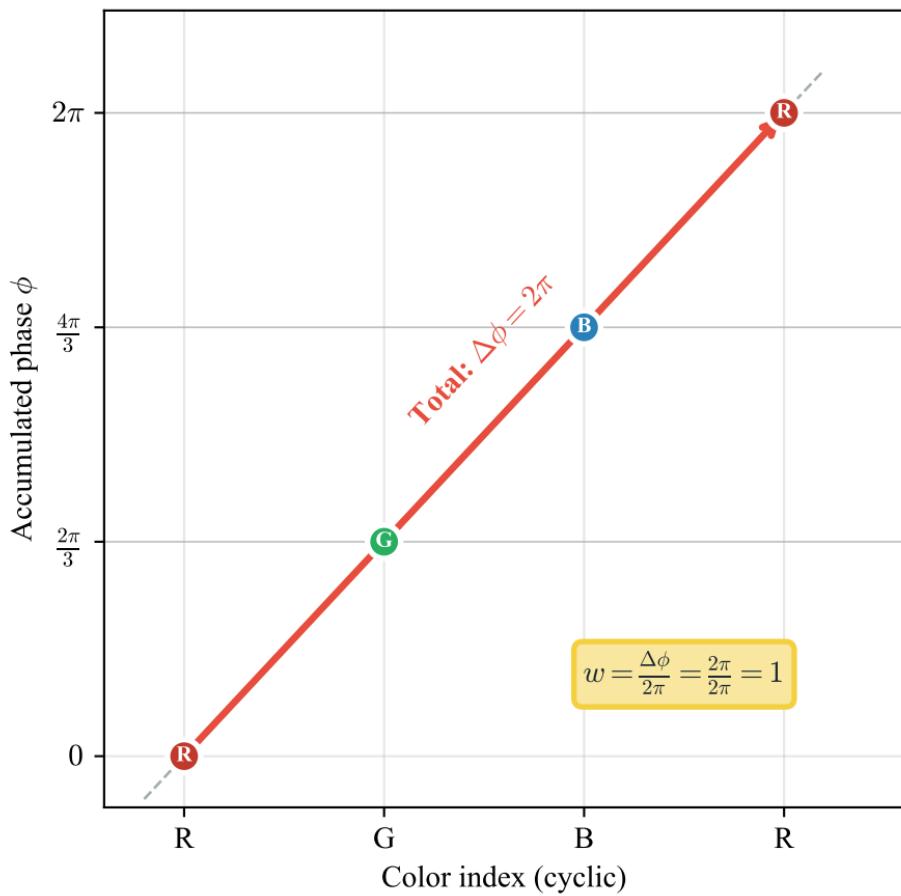


(a) Phase circle: $\phi_c \bmod 2\pi$



(b) Unwrapped: one full winding



The \mathbb{Z}_3 -symmetric phases complete one cycle: $w = +1$ is topologically protected.