Rotation in the (γ_1, γ_2) plane

γ_2

Ψ

γ_1

$\varphi = 0$

γ'_1

Ψ

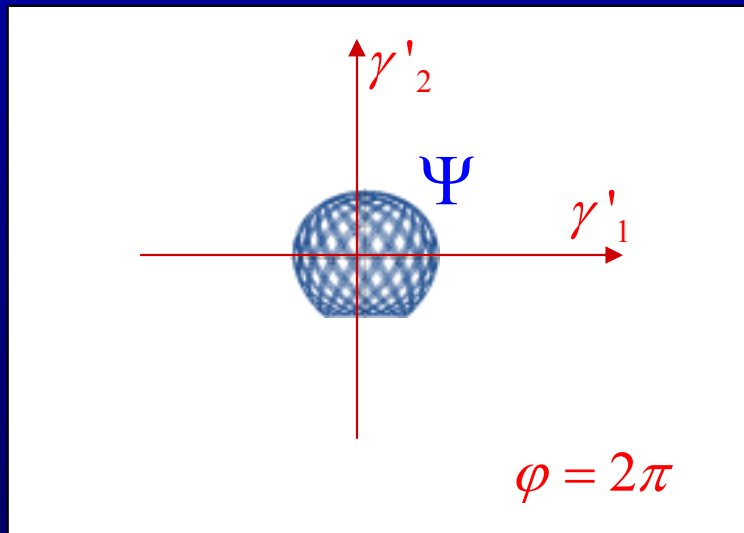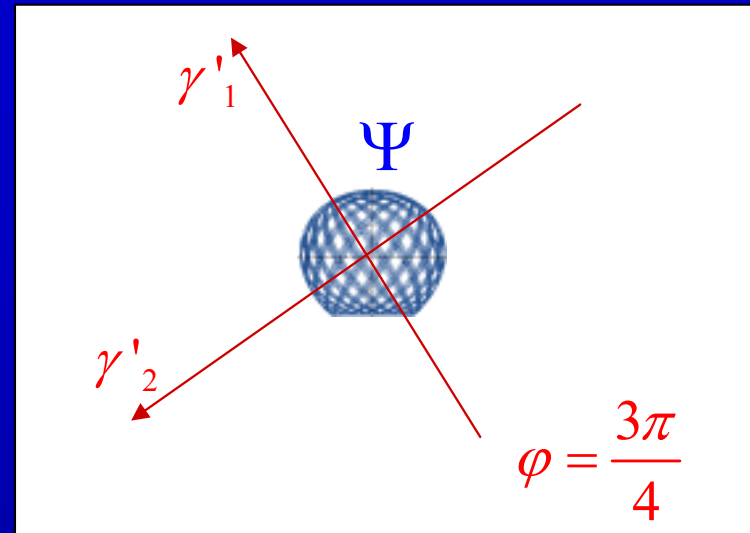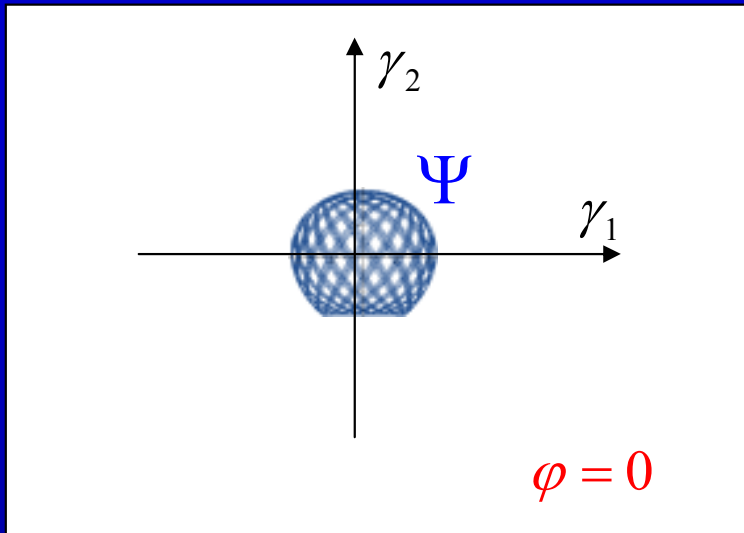γ'_2

$\varphi = \dfrac{3\pi}{4}$

γ'_2

Ψ

γ'_1

$\varphi = 2\pi$

If the observer, together with the reference frame, starts to rotate, then after having exhibited the $\varphi = 2\pi$ turn, he observes the same spinor Ψ, as he did at $\varphi = 0$.

The sign of the spinor did not change.