

Examples

1) Rotation

$$\begin{aligned}\gamma_0 &\rightarrow \gamma_0, & \gamma_1 &\rightarrow \gamma_1, & \gamma_2 &\rightarrow \gamma_2 \cos \mathcal{G} + \gamma_3 \sin \mathcal{G} \\ & & & & \gamma_3 &\rightarrow -\gamma_2 \sin \mathcal{G} + \gamma_3 \cos \mathcal{G}\end{aligned}$$

Case $\mathcal{G} = \pi$: $\gamma_0 \rightarrow \gamma_0, \gamma_1 \rightarrow \gamma_1, \gamma_2 \rightarrow -\gamma_2, \gamma_3 \rightarrow -\gamma_3$

$$\theta_1 \rightarrow \bar{\theta}_1,$$

$$\theta_2 \rightarrow \bar{\theta}_2$$

$$\bar{\theta}_1 \rightarrow \theta_1$$

$$\bar{\theta}_2 \rightarrow \theta_2$$

A spinor of the first left ideal transforms as

$$\underbrace{(\psi^{11} \underline{1} + \psi^{21} \theta_1 \theta_2)}_L + \underbrace{(\psi^{31} \theta_1 + \psi^{41} \theta_2)}_R \bar{\theta}_1 \bar{\theta}_2 \rightarrow \underbrace{(\psi^{11} \underline{1} + \psi^{21} \bar{\theta}_1 \bar{\theta}_2)}_L + \underbrace{(\psi^{31} \bar{\theta}_1 + \psi^{41} \bar{\theta}_2)}_R \theta_1 \theta_2$$

This is a spinor of the 2nd left ideal

A left handed spinor of the *first ideal* transforms into a left handed spinor of the *second ideal*.