

§ Spin(4)

01

$u = \frac{1}{2}(1 + e_{12} + e_{34} \pm e_{1234})$ Compute $u^2 =$

ANS e_{1234} , $e_{12} + e_{34}$

02

$a \in R^4, B = \alpha e_{12} + \beta e_{34} \in \Lambda^2 R^4$ Show that $BaB \in R^4$

03

Compute $\exp(\alpha e_{12} + \beta e_{34}) =$

Hint $\exp(\alpha e_{12}) = \cos \alpha + e_{12} \sin \alpha$