

Program:

```
from sympy import symbols, sinh, cosh
from sympy.galgebra.printer import Format, xpdf
from sympy.galgebra.ga import Ga

Format()

(hyp2d,e,eb) = Ga.build(r'e \bar{e}', g=[1, -1])
s = symbols('s', real=True)

R = cosh(s/2) + sinh(s/2)*(e^eb)
print R
Rdag = R.rev()
print Rdag
print r'%R\bm{e}R^{\R} =',R*e*Rdag
print r'%R\bm{\bar{e}}R^{\R} =',R*eb*Rdag

xpdf(paper='letter',prog=True)
```

Code Output:

$$\cosh\left(\frac{s}{2}\right) + \sinh\left(\frac{s}{2}\right)e \wedge \bar{e}$$

$$\cosh\left(\frac{s}{2}\right) - \sinh\left(\frac{s}{2}\right)e \wedge \bar{e}$$

$$ReR^\dagger = \cosh(s)e - \sinh(s)\bar{e}$$

$$R\bar{e}R^\dagger = -\sinh(s)e + \cosh(s)\bar{e}$$