

In[•]:= H =

$\Omega$  (KroneckerProduct[PauliMatrix[3], PauliMatrix[0]] +  
[克罗内克积] [泡利自旋矩阵] [泡利自旋矩阵]  
KroneckerProduct[PauliMatrix[0], PauliMatrix[3]]);  
[克罗内克积] [泡利自旋矩阵] [泡利自旋矩阵]

In[•]:= Ut = MatrixExp $\left[-\frac{i}{\hbar} H t\right]$ ;  
[矩阵指数]

TraditionalForm[Ut]  
[传统格式]

Out[•]//TraditionalForm=

$$\begin{pmatrix} e^{-\frac{2 i t \Omega}{\hbar}} & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & e^{\frac{2 i t \Omega}{\hbar}} \end{pmatrix}$$