Results with all scalar variables declared as real

$$X = t\boldsymbol{\gamma}_t + x\boldsymbol{\gamma}_x + y\boldsymbol{\gamma}_y + z\boldsymbol{\gamma}_z + w\boldsymbol{\gamma}_w$$

$$K = k^t\boldsymbol{\gamma}_t + k^x\boldsymbol{\gamma}_x + k^y\boldsymbol{\gamma}_y + k^z\boldsymbol{\gamma}_z + k^w\boldsymbol{\gamma}_w$$

$$K \cdot X = k^t t - k^w w - k^x x - k^y y - k^z z$$

$$I^2 = 1$$

$$I_{xyzw} = I\gamma_x\gamma_y\gamma_z\gamma_w = \boldsymbol{\gamma}_t$$

$$\left(I\gamma_x\gamma_y\gamma_z\gamma_w\right)^2 = 1$$

$$e^{I_{xyzw}K\cdot X} = \cos\left(-k^t t + k^w w + k^x x + k^y y + k^z z\right) - \sin\left(-k^t t + k^w w + k^x x + k^y y + k^z z\right)\boldsymbol{\gamma}_t$$