Results with all scalar variables declared as real

$$X = t\gamma_t + x\gamma_x + y\gamma_y + z\gamma_z + w\gamma_w$$

$$K = k^t\gamma_t + k^x\gamma_x + k^y\gamma_y + k^z\gamma_z + k^w\gamma_w$$

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

$$I^2 = 1$$

$$I_{xyzw} = I\gamma_x\gamma_y\gamma_z\gamma_w = \gamma_t$$

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

$$e^{-E\gamma_w t} = \cos(Et) - \sin(Et)\gamma_w$$

$$-E\gamma_w e^{-E\gamma_w t}\gamma_t = -Et\sin(Et) - Et\cos(Et)\gamma_w$$

$$\boldsymbol{\nabla} e^{-E\gamma_w t} = -E\sin(Et)\gamma_t - E\cos(Et)\gamma_t \wedge \gamma_w$$

$$\boldsymbol{\nabla} e^{-E\gamma_w t} + E\gamma_w e^{-E\gamma_w t}\gamma_t = Et\sin(Et) - E\sin(Et)\gamma_t + Et\cos(Et)\gamma_w - E\cos(Et)\gamma_t \wedge \gamma_w$$

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

$$\begin{aligned}\boldsymbol{\nabla} e^{I_{xyzw}K\cdot X} =& k^t\cos\left(-k^t t + k^w w + k^x x + k^y y + k^z z\right) \\ &+ k^t\sin\left(-k^t t + k^w w + k^x x + k^y y + k^z z\right)\gamma_t + k^x\sin\left(-k^t t + k^w w + k^x x + k^y y + k^z z\right)\gamma_x + k^y\sin\left(-k^t t + k^w w + k^x x + k^y y + k^z z\right)\gamma_y + k^z\sin\left(-k^t t + k^w w + k^x x + k^y y + k^z z\right)\gamma_z + k^w\sin\left(-k^t t + k^w w + k^x x + k^y y + k^z z\right)\gamma_w \\ &- k^x\cos\left(-k^t t + k^w w + k^x x + k^y y + k^z z\right)\gamma_t \wedge \gamma_x - k^y\cos\left(-k^t t + k^w w + k^x x + k^y y + k^z z\right)\gamma_t \wedge \gamma_y - k^z\cos\left(-k^t t + k^w w + k^x x + k^y y + k^z z\right)\gamma_t \wedge \gamma_z - k^w\cos\left(-k^t t + k^w w + k^x x + k^y y + k^z z\right)\gamma_t \wedge \gamma_w\end{aligned}$$