$$\langle T, N\rangle' = \langle T', N\rangle + \langle T, N'\rangle$$

$$= \kappa\langle N, N\rangle + \langle T, -\kappa T\rangle$$

$$+ \langle T, \tau B\rangle$$

$$\begin{pmatrix} T \\ N \\ B \end{pmatrix}' = \begin{pmatrix} 0 & \kappa & 0 \\ -\kappa & 0 & \tau \\ 0 & -\tau & 0 \end{pmatrix} \begin{pmatrix} T \\ N \\ B \end{pmatrix}$$

$$\begin{pmatrix} t_1 & t_2 & t_3 \\ n_1 & n_2 & n_3 \\ b_1 & b_2 & b_3 \end{pmatrix}' = \begin{pmatrix} 0 & \kappa & 0 \\ -\kappa & 0 & \tau \\ 0 & -\tau & 0 \end{pmatrix} \begin{pmatrix} t_1 & t_2 & t_3 \\ n_1 & n_2 & n_3 \\ b_1 & b_2 & b_3 \end{pmatrix}$$

$$M' = A\,M \qquad \overset{''}{A} \qquad \overset{''}{M}$$

$$(M^t \cdot M)' = (M^t)' \cdot M + M^t \cdot M'$$

$$(M^t)' = M^t \cdot A^t = -M^t A$$

$$-M^t A \cdot M + M^t A M = 0$$