$$C = \begin{bmatrix} l_{1} & l_{2} & l_{3} \\ m_{1} & m_{2} & m_{3} \\ s_{1} & s_{2} & s_{3} \end{bmatrix}$$

$$C = \begin{bmatrix} l_1 & l_2 & l_3 \\ m_1 & m_2 & m_3 \\ s_1 & s_2 & s_3 \end{bmatrix} ; M = (m_1, m_2, m_3); \\ S = (s_1, s_2, s_3); \\ S =$$

chine Pau,

$$P = \begin{bmatrix} \frac{L_1}{|L|^2} & \frac{m_1}{|m|^2} & \frac{S_1}{|S|^2} \\ \frac{L_2}{|L|^2} & \frac{m_2}{|M|^2} & \frac{S_2}{|S|^2} \\ \frac{L_3}{|L|^2} & \frac{m_3}{|M|^2} & \frac{S_3}{|S|^2} \end{bmatrix}$$
Since c is positive,

$$P : C = M \cdot S = S \cdot C = M \cdot S = S$$

$$C \cdot P = \begin{bmatrix} 1 & c_1^2 + c_2^2 + c_3^2 \\ c \cdot P & = \begin{bmatrix} 1 & c_1^2 + c_2^2 + c_3^2 \\ c & 1 & c_1^2 + c_2^2 + c_3^2 \end{bmatrix} = \begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$$

$$C \cdot P = \begin{bmatrix} 1 & c_1^2 + c_2^2 + c_3^2 \\ c & 1 & c_1^2 + c_2^2 + c_3^2 \end{bmatrix} = \begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$$

$$C \cdot P = \begin{bmatrix} 1 & c_1^2 + c_2^2 + c_3^2 \\ c & 1 & c_1^2 + c_2^2 + c_3^2 \end{bmatrix} = \begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$$

$$C = \begin{bmatrix} l_1 & l_2 & l_3 \\ m_1 & m_2 & m_3 \\ s_1 & s_2 & s_3 \end{bmatrix}$$

$$C = \begin{bmatrix} l_1 & l_2 & l_3 \\ m_1 & m_2 & m_3 \\ s_1 & s_2 & s_3 \end{bmatrix} ; M = (m_1, m_2, m_3); \\ S = (s_1, s_2, s_3); \\ S =$$

lefine P as,

$$P = \begin{bmatrix} \frac{L_1}{|L|^2} & \frac{m_1}{|m|^2} & \frac{S_1}{|S|^2} \\ \frac{L_2}{|L|^2} & \frac{m_2}{|M|^2} & \frac{S_2}{|S|^2} \\ \frac{L_3}{|L|^2} & \frac{m_3}{|M|^2} & \frac{S_3}{|S|^2} \end{bmatrix}$$
Since c is positive,

$$P : c$$
 abo positive. We are just dividing by are just dividing by square of magnitude.

NOW,

$$C \cdot P = \begin{bmatrix} \frac{1}{111^{2}} & \frac{1}{111^{2}} & \frac{1}{1111^{2}} & \frac{1}{1111^{2}$$

$$C = \begin{bmatrix} l_1 & l_2 & l_3 \\ m_1 & m_2 & m_3 \\ s_1 & s_2 & s_3 \end{bmatrix}$$

efine P as,

$$P = \begin{bmatrix} \frac{L_1}{1 L l^2} & \frac{m_1}{1 m l^2} & \frac{c_1}{|s|^2} \\ \frac{L_2}{|L|^2} & \frac{m_2}{|m|^2} & \frac{c_2}{|s|^2} \\ \frac{L_3}{|L|^2} & \frac{m_3}{|m|^2} & \frac{c_3}{|s|^2} \end{bmatrix}$$
Since c is positive,

$$P : s abo positive. We$$
are just dividing by

square of magnitude.

$$C \cdot P = \begin{bmatrix} 1 & c_1^2 + c_2^2 + c_3^2 \\ c \cdot P & = \begin{bmatrix} 1 & c_1^2 + c_2^2 + c_3^2 \\ c & = \begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix} \\ c & c_1^2 + c_2^2 + c_3^2 \end{bmatrix} = \begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$$

$$C = \begin{bmatrix} l_{1} & l_{2} & l_{3} \\ m_{1} & m_{2} & m_{3} \\ s_{1} & s_{2} & s_{3} \end{bmatrix}$$

$$C = \begin{bmatrix} l_1 & l_2 & l_3 \\ m_1 & m_2 & m_3 \\ s_1 & s_2 & s_3 \end{bmatrix} ; M = (m_1, m_2, m_3); \\ S = (s_1, s_2, s_3); \\ S =$$

NOW,

$$C \cdot P = \begin{bmatrix} 1 & (1 + 1)^{2} + 1^{2} & 0 & 0 \\ 1 & (1 + 1)^{2} + 1^{2} & 0 & 0 \\ 1 & (m_{1}^{2} + m_{1}^{2} + m_{3}^{2}) & 0 \\ 0 & 1 & (1 + 1)^{2} + 1^{2} & 0 \end{bmatrix} = \begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$$

$$\begin{bmatrix} 1 & (1 + 1)^{2} + 1^{2} & (1 + 1)^{2} + 1^{2} & (1 + 1)^{2} & (1$$