

$$\left( \begin{array}{cc} \underbrace{\begin{array}{cc} 1 & 0 \\ \ddots & \ddots \\ 0 & 1 \end{array}}_p & \begin{array}{cc} -1 & 0 \\ \ddots & \ddots \\ 0 & -1 \end{array} \\ \begin{array}{c} q \end{array} & \begin{array}{c} \cos \omega_1 \quad -\sin \omega_1 \\ \sin \omega_1 \quad \cos \omega_1 \end{array} \\ \ddots & \begin{array}{c} \cos \omega_r \quad -\sin \omega_r \\ \sin \omega_r \quad \cos \omega_r \end{array} \\ \underbrace{\phantom{\begin{array}{c} \cos \omega_1 \quad -\sin \omega_1 \\ \sin \omega_1 \quad \cos \omega_1 \end{array}}}_r \end{array} \right)$$