



$$\epsilon^2 + (e - p)^2 = (\text{const}) \quad \left(\text{moment of inertia} \right) = e^T \left(\sum_i P_i P_i^T \right) e$$

$$P = O \begin{pmatrix} \lambda_1 & & 0 \\ & \lambda_2 & \\ 0 & & \lambda_n \end{pmatrix} O^T \quad \lambda_i \geq 0$$