

$$R_{meas} = \begin{bmatrix} \frac{sa_{11}(a_y a_z m_x^2 + a_y a_z m_y^2 + a_z^2 m_y m_z - m_y m_z)^2 + sa_{22}(a_x a_z m_x^2 + a_x a_z m_y^2 + a_z^2 m_x m_z - m_x m_z)^2 + sa_{33}(a_x^2 m_x m_y - a_x a_y m_x^2 + a_x a_y m_y^2 + 2a_x a_z m_y m_z - a_y^2 m_x m_y - 2a_y a_z m_x m_z)^2 + sm_{11}(a_x^2 a_z m_y + a_y^2 a_z m_y + a_y a_z m_z - a_y m_z)^2 + sm_{22}(a_x^2 a_z m_x + a_x a_z m_z - a_x m_z + a_y^2 a_z m_x)^2 + sm_{33}(a_x a_z m_y - a_x m_y - a_y a_z m_x + a_y m_x)^2}{(a_x^2 a_z^2 m_x^2 + a_x^2 m_y^2 + 2a_x a_y a_z^2 m_x m_y - 2a_x a_y m_x m_y + 2a_x a_z^3 m_x m_z - 2a_x a_z m_x m_z + a_y^2 a_z^2 m_y^2 + a_y^2 m_x^2 + 2a_y a_z^3 m_y m_z - 2a_y a_z m_y m_z + a_z^4 m_z^2 - 2a_z^2 m_z^2 + m_z^2)^2} & \frac{sa_{33}(-a_x^2 m_x m_y + a_x a_y m_x^2 - a_x a_y m_y^2 - 2a_x a_z m_y m_z + a_y^2 m_x m_y + 2a_y a_z m_x m_z)}{\sqrt{1-a_z^2}(a_x^2 a_z^2 m_x^2 + a_x^2 m_y^2 + 2a_x a_y a_z^2 m_x m_y - 2a_x a_y m_x m_y + 2a_x a_z^3 m_x m_z - 2a_x a_z m_x m_z + a_y^2 a_z^2 m_y^2 + a_y^2 m_x^2 + 2a_y a_z^3 m_y m_z - 2a_y a_z m_y m_z + a_z^4 m_z^2 - 2a_z^2 m_z^2 + m_z^2)} & \frac{sa_{33}(-a_x^2 m_x m_y + a_x a_y m_x^2 - a_x a_y m_y^2 - 2a_x a_z m_y m_z + a_y^2 m_x m_y + 2a_y a_z m_x m_z)}{(a_x^2 + a_y^2)(a_x^2 a_z^2 m_x^2 + a_x^2 m_y^2 + 2a_x a_y a_z^2 m_x m_y - 2a_x a_y m_x m_y + 2a_x a_z^3 m_x m_z - 2a_x a_z m_x m_z + a_y^2 a_z^2 m_y^2 + a_y^2 m_x^2 + 2a_y a_z^3 m_y m_z - 2a_y a_z m_y m_z + a_z^4 m_z^2 - 2a_z^2 m_z^2 + m_z^2)} \\ \frac{sa_{33}(-a_x^2 m_x m_y + a_x a_y m_x^2 - a_x a_y m_y^2 - 2a_x a_z m_y m_z + a_y^2 m_x m_y + 2a_y a_z m_x m_z)}{\sqrt{1-a_z^2}(a_x^2 a_z^2 m_x^2 + a_x^2 m_y^2 + 2a_x a_y a_z^2 m_x m_y - 2a_x a_y m_x m_y + 2a_x a_z^3 m_x m_z - 2a_x a_z m_x m_z + a_y^2 a_z^2 m_y^2 + a_y^2 m_x^2 + 2a_y a_z^3 m_y m_z - 2a_y a_z m_y m_z + a_z^4 m_z^2 - 2a_z^2 m_z^2 + m_z^2)} & -\frac{sa_{33}}{a_z^2 - 1} & 0 \\ \frac{a_x sa_{22}(a_x a_z m_x^2 + a_x a_z m_y^2 + a_z^2 m_x m_z - m_x m_z) + a_y sa_{11}(a_y a_z m_x^2 + a_y a_z m_y^2 + a_z^2 m_y m_z - m_y m_z)}{(a_x^2 + a_y^2)(a_x^2 a_z^2 m_x^2 + a_x^2 m_y^2 + 2a_x a_y a_z^2 m_x m_y - 2a_x a_y m_x m_y + 2a_x a_z^3 m_x m_z - 2a_x a_z m_x m_z + a_y^2 a_z^2 m_y^2 + a_y^2 m_x^2 + 2a_y a_z^3 m_y m_z - 2a_y a_z m_y m_z + a_z^4 m_z^2 - 2a_z^2 m_z^2 + m_z^2)} & 0 & \frac{a_x^2 sa_{22} + a_y^2 sa_{11}}{(a_x^2 + a_y^2)^2} \end{bmatrix}$$