



$$\begin{pmatrix} y \\ u \\ -\frac{1}{m} \end{pmatrix} = \underbrace{\begin{pmatrix} 1 & 0 & G \\ 0 & 0 & 1 \\ 1 & 1 & G \end{pmatrix}}_{\bar{P}} \begin{pmatrix} d \\ v_m \\ u \end{pmatrix}$$

$$W_{\text{Sollens}} = \begin{pmatrix} 1 & 0 & 0 \\ 0 & W_{\text{S}} & 0 \\ 0 & 0 & 1 \end{pmatrix}$$

$$W_{\text{entres}} = \begin{pmatrix} W_{in} & 0 & 0 \\ 0 & W_{um} & 0 \\ 0 & 0 & 1 \end{pmatrix}$$

$$\begin{pmatrix} y_w \\ u_w \\ -\frac{1}{m} \end{pmatrix} = W_{\text{Sollens}} \cdot \bar{P} \cdot W_{\text{entres}} \begin{pmatrix} \delta_1 \\ \delta_2 \\ \ddot{u} \end{pmatrix}$$

$$\sqrt{y_w^2 + u_w^2}$$