



$$\begin{array}{l}
 \vec{R}_{s,epL} \\
 m_{s,epL} \\
 \vec{r}_{s,epL}
 \end{array}
 \left[\begin{array}{l}
 m_s \\
 \vec{r}_s \\
 \vec{R}_{e,pL} \\
 m_{e,pL} \\
 \vec{r}_{e,pL}
 \end{array} \right]
 \left[\begin{array}{l}
 m_e \\
 \vec{r}_e \\
 \vec{R}_{p,L} \\
 m_{p,L} \\
 \vec{r}_{p,L}
 \end{array} \right]
 \left[\begin{array}{l}
 m_p \\
 \vec{r}_p \\
 m_L \\
 \vec{r}_L
 \end{array} \right]$$