

$$\begin{array}{c} u \\ u' \\ u' \\ u \end{array} \begin{array}{c} \text{Diagram 1} \end{array} \begin{array}{c} \textcircled{2} \\ \textcircled{1} \\ \textcircled{3} \end{array} = \begin{array}{c} u \\ u'' \\ u'' \\ u \end{array} \begin{array}{c} \text{Diagram 2} \end{array} \begin{array}{c} \textcircled{3} \\ \textcircled{1} \\ \textcircled{2} \end{array} + \begin{array}{c} u \\ u \end{array} \begin{array}{c} \text{Diagram 3} \end{array}$$

$$D_i^{u,u'} D_{i+1}^{u',u'} D_i^{u',u} = D_{i+1}^{u,u''} D_i^{u'',u''} D_{i+1}^{u'',u} + \left(\frac{e_{i+2}}{e_{i+1}} \right)^u$$

$$\begin{array}{c} u \\ u' \\ u' \\ u \end{array} \begin{array}{c} \text{Diagram 4} \end{array} \begin{array}{c} \textcircled{3} \\ \textcircled{1} \\ \textcircled{2} \end{array} = \begin{array}{c} u \\ u'' \\ u'' \\ u \end{array} \begin{array}{c} \text{Diagram 5} \end{array} \begin{array}{c} \textcircled{2} \\ \textcircled{1} \\ \textcircled{3} \end{array} - \begin{array}{c} u \\ u \end{array} \begin{array}{c} \text{Diagram 6} \end{array}$$

$$D_i^{u,u'} D_{i+1}^{u',u'} D_i^{u',u} = D_{i+1}^{u,u''} D_i^{u'',u''} D_{i+1}^{u'',u} - \left(\frac{e_{i+1}}{e_i} \right)^u$$

$$\begin{array}{c} u'' \\ u'' \\ u' \\ u \end{array} \begin{array}{c} \text{Diagram 7} \end{array} \begin{array}{c} \textcircled{1} \\ \textcircled{2} \\ \textcircled{2} \end{array} = \begin{array}{c} u'' \\ u' \\ u \\ u \end{array} \begin{array}{c} \text{Diagram 8} \end{array} \begin{array}{c} \textcircled{2} \\ \textcircled{2} \\ \textcircled{1} \end{array}$$

$$D_i^{u,u'} D_{i+1}^{u',u''} D_i^{u'',u''} = D_{i+1}^{u,u} D_i^{u,u'} D_{i+1}^{u',u''}$$