

$$\begin{aligned}
\mathcal{L}[\mathbf{X}_{i,j}[\mathbf{s}_-]] &:= \mathbf{T}_3^s \mathbb{E}[\text{CF@Plus}[\\
&\sum_{v=1}^3 (\mathbf{x}_{vi} (\mathbf{p}_{vi^+} - \mathbf{p}_{vi}) + \mathbf{x}_{vj} (\mathbf{p}_{vj^+} - \mathbf{p}_{vj}) + \\
&\quad (\mathbf{T}_v^s - \mathbf{1}) \mathbf{x}_{vi} (\mathbf{p}_{vi^+} - \mathbf{p}_{vj^+})) , \\
&(\mathbf{T}_1^s - \mathbf{1}) \mathbf{p}_{3j} \mathbf{x}_{1i} (\mathbf{T}_2^s \mathbf{x}_{2i} - \mathbf{x}_{2j}) , \\
&\in \mathbf{s} (\mathbf{T}_3^s - \mathbf{1}) \mathbf{p}_{1j} (\mathbf{p}_{2i} - \mathbf{p}_{2j}) \mathbf{x}_{3i} / (\mathbf{T}_2^s - \mathbf{1}) , \\
&\in \mathbf{s} (\mathbf{1} / \mathbf{2} + \mathbf{T}_2^s \mathbf{p}_{1i} \mathbf{p}_{2j} \mathbf{x}_{1i} \mathbf{x}_{2i} - \mathbf{p}_{1i} \mathbf{p}_{2j} \mathbf{x}_{1i} \mathbf{x}_{2j} - \\
&\quad \mathbf{p}_{3i} \mathbf{x}_{3i} - (\mathbf{T}_2^s - \mathbf{1}) \mathbf{p}_{2j} \mathbf{p}_{3i} \mathbf{x}_{2i} \mathbf{x}_{3i} + \\
&\quad (\mathbf{T}_3^s - \mathbf{1}) \mathbf{p}_{2j} \mathbf{p}_{3j} \mathbf{x}_{2i} \mathbf{x}_{3i} + 2 \mathbf{p}_{2j} \mathbf{p}_{3i} \mathbf{x}_{2j} \mathbf{x}_{3i} + \\
&\quad \mathbf{p}_{1i} \mathbf{p}_{3j} \mathbf{x}_{1i} \mathbf{x}_{3j} - \mathbf{p}_{2i} \mathbf{p}_{3j} \mathbf{x}_{2i} \mathbf{x}_{3j} - \mathbf{T}_2^s \mathbf{p}_{2j} \mathbf{p}_{3j} \mathbf{x}_{2i} \mathbf{x}_{3j} + \\
&\quad ((\mathbf{T}_1^s - \mathbf{1}) \mathbf{p}_{1j} \mathbf{x}_{1i} \\
&\quad (\mathbf{T}_2^{2s} \mathbf{p}_{2j} \mathbf{x}_{2i} - \mathbf{T}_2^s \mathbf{p}_{2j} \mathbf{x}_{2j} - (\mathbf{T}_2^s + \mathbf{1}) (\mathbf{T}_3^s - \mathbf{1}) \mathbf{p}_{3j} \mathbf{x}_{3i} + \\
&\quad \mathbf{T}_2^s \mathbf{p}_{3j} \mathbf{x}_{3j}) + (\mathbf{T}_3^s - \mathbf{1}) \mathbf{p}_{3j} \mathbf{x}_{3i} \\
&\quad (1 - \mathbf{T}_2^s \mathbf{p}_{1i} \mathbf{x}_{1i} + \mathbf{p}_{2i} \mathbf{x}_{2j} + (\mathbf{T}_2^s - 2) \mathbf{p}_{2j} \mathbf{x}_{2j}))) / \\
&(\mathbf{T}_2^s - \mathbf{1})]]
\end{aligned}$$