

I'd expect eq. 26 to be:

$$F_{ij}^{(HLL)} = \begin{cases} F(V_L^{(n)}) & 0 \leq S_L \\ \frac{S_R F(V_L^{(n)}) - S_L F(V_R^{(n)}) + S_R S_L (F(V_R^{(n)}) - F(V_L^{(n)}))}{S_R - S_L} & S_L \leq 0 \leq S_R \\ F(V_R^{(n)}) & S_R \leq 0 \end{cases} \quad (26)$$

Instead of:

$$F_{ij}^{(HLL)} = \begin{cases} F(V_L^{(n)}) & 0 \leq S_L \\ \frac{S_R F(V_L^{(n)}) - S_L F(V_R^{(n)}) + S_R S_L (V_R^{(n)} - V_L^{(n)})}{S_R - S_L} & S_L \leq 0 \leq S_R \\ F(V_R^{(n)}) & S_R \leq 0 \end{cases} \quad (26 \text{ original})$$

This is founded in an subtraction of a vector from a 4×2 Matrix.