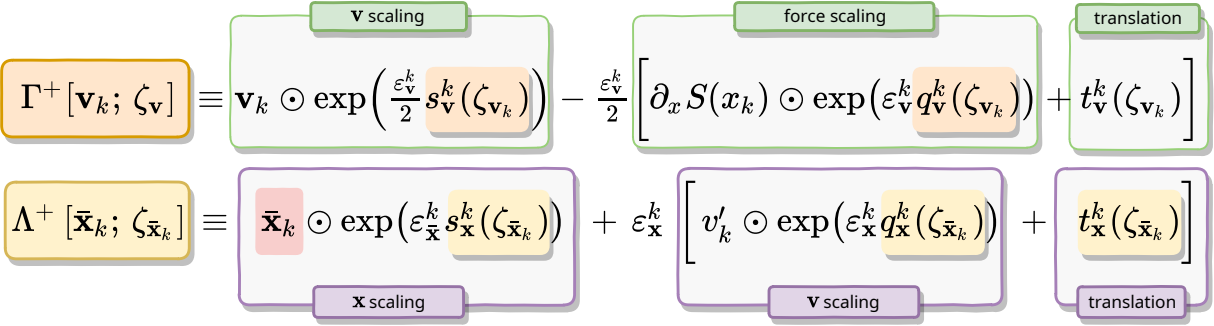
$\Gamma^+[\mathbf{v}_k;\,\zeta_\mathbf{v}] \equiv \mathbf{v}_k \odot \exp\left(\frac{\varepsilon_\mathbf{v}^k}{2} s_\mathbf{v}^k(\zeta_{\mathbf{v}_k})\right) - \frac{\varepsilon_\mathbf{v}^k}{2}\left[\partial_x S(x_k) \odot \exp\left(\varepsilon_\mathbf{v}^k q_\mathbf{v}^k(\zeta_{\mathbf{v}_k})\right) + t_\mathbf{v}^k(\zeta_{\mathbf{v}_k})\right]$
$\Lambda^+[\bar{\mathbf{x}}_k;\,\zeta_{\bar{\mathbf{x}}_k}] \equiv \bar{\mathbf{x}}_k \odot \exp\left(\varepsilon_{\bar{\mathbf{x}}}^k s_\mathbf{x}^k(\zeta_{\bar{\mathbf{x}}_k})\right) + \varepsilon_\mathbf{x}^k\left[v'_k \odot \exp\left(\varepsilon_\mathbf{x}^k q_\mathbf{x}^k(\zeta_{\bar{\mathbf{x}}_k})\right) + t_\mathbf{x}^k(\zeta_{\bar{\mathbf{x}}_k})\right]$
v scaling
force scaling
translation
x scaling
v scaling
translation