

$$\underline{y|\eta}\ltimes = \eta x - y \frac{\partial}{\partial x} = \eta_i \, Q^i - y^i \, P_i = y^i | \eta_i \frac{0}{-1} \Big| \frac{1}{0} \, \frac{Q^i}{P_i}$$

$$\underline{e_i|0}\ltimes = \frac{\partial}{\partial x^i} = P_i$$

$$\underline{0|\varepsilon^j}\ltimes = x^j = Q^j$$

$$\exp t \, \underline{y|\eta}\ltimes = (ty|t\eta)\ltimes$$