- $$\left.\begin{array}{rcl} p & \to & p\exp\left[-\frac{\tau}{2}\frac{p_\zeta}{m_\zeta}\right] \\ q & \to & q\exp\left[-\frac{\tau}{2}\frac{p_\xi}{m_\xi}\right] \\ \zeta & \to & \zeta+\frac{\tau}{2}\frac{p_\zeta}{m_\zeta} \\ \xi & \to & \xi+\frac{\tau}{2}\frac{p_\xi}{m_\xi} \end{array}\right\} : U_C^{\mathrm{BK}}\left(\tfrac{\tau}{2}\right)$$
- $$\left.\begin{array}{rcl} q & \to & q+\frac{\tau}{4}\frac{p}{m} \\ p_\zeta & \to & p_\zeta+\frac{\tau}{4}F_{p_\zeta} \end{array}\right\} : U_B^{\mathrm{BK}}\left(\tfrac{\tau}{4}\right)$$
- $$\left.\begin{array}{rcl} p & \to & p+\tau F \\ p_\xi & \to & p_\xi+\tau F_{p_\xi} \end{array}\right\} : U_A^{\mathrm{BK}}(\tau)$$
- $$\left.\begin{array}{rcl} q & \to & q+\frac{\tau}{4}\frac{p}{m} \\ \eta & \to & \eta+\frac{\tau}{4}\frac{p_\eta}{m_\eta} \\ p_\zeta & \to & p_\zeta+\frac{\tau}{4}F_{p_\zeta} \end{array}\right\} : U_B^{\mathrm{BK}}\left(\tfrac{\tau}{4}\right)$$
- $$\left.\begin{array}{rcl} p & \to & p\exp\left[-\frac{\tau}{2}\frac{p_\zeta}{m_\zeta}\right] \\ q & \to & q\exp\left[-\frac{\tau}{2}\frac{p_\xi}{m_\xi}\right] \\ \zeta & \to & \zeta+\frac{\tau}{2}\frac{p_\zeta}{m_\zeta} \\ \xi & \to & \xi+\frac{\tau}{2}\frac{p_\xi}{m_\xi} \end{array}\right\} : U_C^{\mathrm{BK}}\left(\tfrac{\tau}{2}\right)$$
- $$\left.\begin{array}{rcl} q & \to & q+\frac{\tau}{4}\frac{p}{m} \\ p_\zeta & \to & p_\zeta+\frac{\tau}{4}F_{p_\zeta} \end{array}\right\} : U_B^{\mathrm{BK}}\left(\tfrac{\tau}{4}\right)$$