$$dW_{00}$$

$$H^4 t^2 \left(6\,\partial_0\partial_0 K_{00} - 2\,\partial_1\partial_1 K_{00} - 2\,\partial_2\partial_2 K_{00} - 2\,\partial_3\partial_3 K_{00}\right) +$$
$$H^4 t^3 \left(4\,\partial_0\partial_0\partial_0 K_{00} - 4\,\partial_1\partial_1\partial_0 K_{00} - 4\,\partial_2\partial_2\partial_0 K_{00} - 4\,\partial_3\partial_3\partial_0 K_{00}\right) +$$
$$H^4 t^4 \left(\frac{1}{2}\,\partial_0\partial_0\partial_0\partial_0 K_{00} - \partial_1\partial_1\partial_0\partial_0 K_{00} + \frac{1}{2}\,\partial_1\partial_1\partial_1\partial_1 K_{00} - \partial_2\partial_2\partial_0\partial_0 K_{00} + \partial_2\partial_2\partial_1\partial_1 K_{00} + \right.$$
$$\left. \frac{1}{2}\,\partial_2\partial_2\partial_2\partial_2 K_{00} - \partial_3\partial_3\partial_0\partial_0 K_{00} + \partial_3\partial_3\partial_1\partial_1 K_{00} + \partial_3\partial_3\partial_2\partial_2 K_{00} + \frac{1}{2}\,\partial_3\partial_3\partial_3\partial_3 K_{00}\right)$$

$$dW_{11}$$

$$H^4 t^2 \left(6\,\partial_0\partial_0 K_{11} - 2\,\partial_1\partial_1 K_{11} - 2\,\partial_2\partial_2 K_{11} - 2\,\partial_3\partial_3 K_{11}\right) +$$
$$H^4 t^3 \left(4\,\partial_0\partial_0\partial_0 K_{11} - 4\,\partial_1\partial_1\partial_0 K_{11} - 4\,\partial_2\partial_2\partial_0 K_{11} - 4\,\partial_3\partial_3\partial_0 K_{11}\right) +$$
$$H^4 t^4 \left(\frac{1}{2}\,\partial_0\partial_0\partial_0\partial_0 K_{11} - \partial_1\partial_1\partial_0\partial_0 K_{11} + \frac{1}{2}\,\partial_1\partial_1\partial_1\partial_1 K_{11} - \partial_2\partial_2\partial_0\partial_0 K_{11} + \partial_2\partial_2\partial_1\partial_1 K_{11} + \right.$$
$$\left. \frac{1}{2}\,\partial_2\partial_2\partial_2\partial_2 K_{11} - \partial_3\partial_3\partial_0\partial_0 K_{11} + \partial_3\partial_3\partial_1\partial_1 K_{11} + \partial_3\partial_3\partial_2\partial_2 K_{11} + \frac{1}{2}\,\partial_3\partial_3\partial_3\partial_3 K_{11}\right)$$

$$dW_{22}$$

$$H^4 t^2 \left(6\,\partial_0\partial_0 K_{22} - 2\,\partial_1\partial_1 K_{22} - 2\,\partial_2\partial_2 K_{22} - 2\,\partial_3\partial_3 K_{22}\right) +$$
$$H^4 t^3 \left(4\,\partial_0\partial_0\partial_0 K_{22} - 4\,\partial_1\partial_1\partial_0 K_{22} - 4\,\partial_2\partial_2\partial_0 K_{22} - 4\,\partial_3\partial_3\partial_0 K_{22}\right) +$$
$$H^4 t^4 \left(\frac{1}{2}\,\partial_0\partial_0\partial_0\partial_0 K_{22} - \partial_1\partial_1\partial_0\partial_0 K_{22} + \frac{1}{2}\,\partial_1\partial_1\partial_1\partial_1 K_{22} - \partial_2\partial_2\partial_0\partial_0 K_{22} + \partial_2\partial_2\partial_1\partial_1 K_{22} + \right.$$
$$\left. \frac{1}{2}\,\partial_2\partial_2\partial_2\partial_2 K_{22} - \partial_3\partial_3\partial_0\partial_0 K_{22} + \partial_3\partial_3\partial_1\partial_1 K_{22} + \partial_3\partial_3\partial_2\partial_2 K_{22} + \frac{1}{2}\,\partial_3\partial_3\partial_3\partial_3 K_{22}\right)$$

$$dW_{33}$$

$$H^4 t^2 \left(6\,\partial_0\partial_0 K_{33} - 2\,\partial_1\partial_1 K_{33} - 2\,\partial_2\partial_2 K_{33} - 2\,\partial_3\partial_3 K_{33}\right) +$$
$$H^4 t^3 \left(4\,\partial_0\partial_0\partial_0 K_{33} - 4\,\partial_1\partial_1\partial_0 K_{33} - 4\,\partial_2\partial_2\partial_0 K_{33} - 4\,\partial_3\partial_3\partial_0 K_{33}\right) +$$
$$H^4 t^4 \left(\frac{1}{2}\,\partial_0\partial_0\partial_0\partial_0 K_{33} - \partial_1\partial_1\partial_0\partial_0 K_{33} + \frac{1}{2}\,\partial_1\partial_1\partial_1\partial_1 K_{33} - \partial_2\partial_2\partial_0\partial_0 K_{33} + \partial_2\partial_2\partial_1\partial_1 K_{33} + \right.$$
$$\left. \frac{1}{2}\,\partial_2\partial_2\partial_2\partial_2 K_{33} - \partial_3\partial_3\partial_0\partial_0 K_{33} + \partial_3\partial_3\partial_1\partial_1 K_{33} + \partial_3\partial_3\partial_2\partial_2 K_{33} + \frac{1}{2}\,\partial_3\partial_3\partial_3\partial_3 K_{33}\right)$$

$$dW_{01}$$

$$H^4 t^2 \left(6\,\partial_0\partial_0 K_{01} - 2\,\partial_1\partial_1 K_{01} - 2\,\partial_2\partial_2 K_{01} - 2\,\partial_3\partial_3 K_{01}\right) +$$
$$H^4 t^3 \left(4\,\partial_0\partial_0\partial_0 K_{01} - 4\,\partial_1\partial_1\partial_0 K_{01} - 4\,\partial_2\partial_2\partial_0 K_{01} - 4\,\partial_3\partial_3\partial_0 K_{01}\right) +$$
$$H^4 t^4 \left(\frac{1}{2}\,\partial_0\partial_0\partial_0\partial_0 K_{01} - \partial_1\partial_1\partial_0\partial_0 K_{01} + \frac{1}{2}\,\partial_1\partial_1\partial_1\partial_1 K_{01} - \partial_2\partial_2\partial_0\partial_0 K_{01} + \partial_2\partial_2\partial_1\partial_1 K_{01} + \right.$$
$$\left. \frac{1}{2}\,\partial_2\partial_2\partial_2\partial_2 K_{01} - \partial_3\partial_3\partial_0\partial_0 K_{01} + \partial_3\partial_3\partial_1\partial_1 K_{01} + \partial_3\partial_3\partial_2\partial_2 K_{01} + \frac{1}{2}\,\partial_3\partial_3\partial_3\partial_3 K_{01}\right)$$

$$dW_{02}$$

$$H^4 t^2 \left(6 \partial_0\partial_0 K_{02} - 2 \partial_1\partial_1 K_{02} - 2 \partial_2\partial_2 K_{02} - 2 \partial_3\partial_3 K_{02}\right) +$$
$$H^4 t^3 \left(4 \partial_0\partial_0\partial_0 K_{02} - 4 \partial_1\partial_1\partial_0 K_{02} - 4 \partial_2\partial_2\partial_0 K_{02} - 4 \partial_3\partial_3\partial_0 K_{02}\right) +$$
$$H^4 t^4 \left(\frac{1}{2} \partial_0\partial_0\partial_0\partial_0 K_{02} - \partial_1\partial_1\partial_0\partial_0 K_{02} + \frac{1}{2} \partial_1\partial_1\partial_1\partial_1 K_{02} - \partial_2\partial_2\partial_0\partial_0 K_{02} + \partial_2\partial_2\partial_1\partial_1 K_{02} + \right.$$
$$\left. \frac{1}{2} \partial_2\partial_2\partial_2\partial_2 K_{02} - \partial_3\partial_3\partial_0\partial_0 K_{02} + \partial_3\partial_3\partial_1\partial_1 K_{02} + \partial_3\partial_3\partial_2\partial_2 K_{02} + \frac{1}{2} \partial_3\partial_3\partial_3\partial_3 K_{02}\right)$$

dW_{03}

$$H^4 t^2 \left(6 \partial_0\partial_0 K_{03} - 2 \partial_1\partial_1 K_{03} - 2 \partial_2\partial_2 K_{03} - 2 \partial_3\partial_3 K_{03}\right) +$$
$$H^4 t^3 \left(4 \partial_0\partial_0\partial_0 K_{03} - 4 \partial_1\partial_1\partial_0 K_{03} - 4 \partial_2\partial_2\partial_0 K_{03} - 4 \partial_3\partial_3\partial_0 K_{03}\right) +$$
$$H^4 t^4 \left(\frac{1}{2} \partial_0\partial_0\partial_0\partial_0 K_{03} - \partial_1\partial_1\partial_0\partial_0 K_{03} + \frac{1}{2} \partial_1\partial_1\partial_1\partial_1 K_{03} - \partial_2\partial_2\partial_0\partial_0 K_{03} + \partial_2\partial_2\partial_1\partial_1 K_{03} + \right.$$
$$\left. \frac{1}{2} \partial_2\partial_2\partial_2\partial_2 K_{03} - \partial_3\partial_3\partial_0\partial_0 K_{03} + \partial_3\partial_3\partial_1\partial_1 K_{03} + \partial_3\partial_3\partial_2\partial_2 K_{03} + \frac{1}{2} \partial_3\partial_3\partial_3\partial_3 K_{03}\right)$$

dW_{12}

$$H^4 t^2 \left(6 \partial_0\partial_0 K_{12} - 2 \partial_1\partial_1 K_{12} - 2 \partial_2\partial_2 K_{12} - 2 \partial_3\partial_3 K_{12}\right) +$$
$$H^4 t^3 \left(4 \partial_0\partial_0\partial_0 K_{12} - 4 \partial_1\partial_1\partial_0 K_{12} - 4 \partial_2\partial_2\partial_0 K_{12} - 4 \partial_3\partial_3\partial_0 K_{12}\right) +$$
$$H^4 t^4 \left(\frac{1}{2} \partial_0\partial_0\partial_0\partial_0 K_{12} - \partial_1\partial_1\partial_0\partial_0 K_{12} + \frac{1}{2} \partial_1\partial_1\partial_1\partial_1 K_{12} - \partial_2\partial_2\partial_0\partial_0 K_{12} + \partial_2\partial_2\partial_1\partial_1 K_{12} + \right.$$
$$\left. \frac{1}{2} \partial_2\partial_2\partial_2\partial_2 K_{12} - \partial_3\partial_3\partial_0\partial_0 K_{12} + \partial_3\partial_3\partial_1\partial_1 K_{12} + \partial_3\partial_3\partial_2\partial_2 K_{12} + \frac{1}{2} \partial_3\partial_3\partial_3\partial_3 K_{12}\right)$$

dW_{13}

$$H^4 t^2 \left(6 \partial_0\partial_0 K_{13} - 2 \partial_1\partial_1 K_{13} - 2 \partial_2\partial_2 K_{13} - 2 \partial_3\partial_3 K_{13}\right) +$$
$$H^4 t^3 \left(4 \partial_0\partial_0\partial_0 K_{13} - 4 \partial_1\partial_1\partial_0 K_{13} - 4 \partial_2\partial_2\partial_0 K_{13} - 4 \partial_3\partial_3\partial_0 K_{13}\right) +$$
$$H^4 t^4 \left(\frac{1}{2} \partial_0\partial_0\partial_0\partial_0 K_{13} - \partial_1\partial_1\partial_0\partial_0 K_{13} + \frac{1}{2} \partial_1\partial_1\partial_1\partial_1 K_{13} - \partial_2\partial_2\partial_0\partial_0 K_{13} + \partial_2\partial_2\partial_1\partial_1 K_{13} + \right.$$
$$\left. \frac{1}{2} \partial_2\partial_2\partial_2\partial_2 K_{13} - \partial_3\partial_3\partial_0\partial_0 K_{13} + \partial_3\partial_3\partial_1\partial_1 K_{13} + \partial_3\partial_3\partial_2\partial_2 K_{13} + \frac{1}{2} \partial_3\partial_3\partial_3\partial_3 K_{13}\right)$$

dW_{23}

$$H^4 t^2 \left(6 \partial_0\partial_0 K_{23} - 2 \partial_1\partial_1 K_{23} - 2 \partial_2\partial_2 K_{23} - 2 \partial_3\partial_3 K_{23}\right) +$$
$$H^4 t^3 \left(4 \partial_0\partial_0\partial_0 K_{23} - 4 \partial_1\partial_1\partial_0 K_{23} - 4 \partial_2\partial_2\partial_0 K_{23} - 4 \partial_3\partial_3\partial_0 K_{23}\right) +$$
$$H^4 t^4 \left(\frac{1}{2} \partial_0\partial_0\partial_0\partial_0 K_{23} - \partial_1\partial_1\partial_0\partial_0 K_{23} + \frac{1}{2} \partial_1\partial_1\partial_1\partial_1 K_{23} - \partial_2\partial_2\partial_0\partial_0 K_{23} + \partial_2\partial_2\partial_1\partial_1 K_{23} + \right.$$
$$\left. \frac{1}{2} \partial_2\partial_2\partial_2\partial_2 K_{23} - \partial_3\partial_3\partial_0\partial_0 K_{23} + \partial_3\partial_3\partial_1\partial_1 K_{23} + \partial_3\partial_3\partial_2\partial_2 K_{23} + \frac{1}{2} \partial_3\partial_3\partial_3\partial_3 K_{23}\right)$$