

$$\begin{aligned} & \mathbb{E}[a_{11}x_1\xi_1 + a_{21}x_2\xi_1 + a_{31}x_3\xi_1 + a_{12}x_1\xi_2 + \\ & a_{22}x_2\xi_2 + a_{32}x_3\xi_2 + a_{13}x_1\xi_3 + a_{23}x_2\xi_3 + a_{33}x_3\xi_3, \\ & \xi_1f_1[x_1, x_2, x_3] + \xi_2f_2[x_1, x_2, x_3] + \xi_3f_3[x_1, x_2, x_3]] \end{aligned}$$