

Errata for the book *SDEs for Science and Engineering*

Uffe Høgsbro Thygesen, December 4, 2024

Note: This errata concerns the printed version (2023). I would be grateful if you report further errors by e-mail to uhth@dtu.dk.

Errors

Page	Position	Correction
49	l. 13	Replace $p > 0$ with $p \geq 1$.
57	Theorem 3.9.5, 1.	Replace $p \geq q > 0$ with $p \geq q \geq 1$
57	Theorem 3.9.5, 2.	Replace $p > 0$ with $p \geq 1$
58	l. 7	Replace $p > 0$ with $p \geq 1$.
87	Exercise 4.17, q. 2	Replace $a_j = P_{ij}/P_{ii}$ with $a_j = -P_{ij}/P_{ii}$.
87	Exercise 4.18	Replace $M_i = \sum_{j=1}^i X_j$ with $M_i = \sum_{j=1}^i X_j$
113	Exercise 5.8, q. 2 and 3	Note that a more compact “Hamiltonian” method exists
174	l. 2	Replace $\mathbf{E} X_t ^2 \leq (x_0^2 \cdots$ with $\mathbf{E} X_t ^2 \leq (x_0 ^2 \cdots$
197	l. 5	”The white curve” should be ”The black curve”
219	Last displayed formula	Replace $\mathbb{Q}\{Z \mathcal{G}\} = \mathbb{E}\{L_T Z \mathcal{G}\}$ with $\mathbb{Q}\{Z \mathcal{G}\} = \mathbb{E}\{L_T Z \mathcal{G}\}/\mathbb{E}\{L_T \mathcal{G}\}$
219	l. 5 from bottom	Replace $\mathbb{Q}\{W_t \mathcal{F}_s\} = \mathbb{E}\{W_t L_t \mathcal{F}_s\}$ with $\mathbb{Q}\{W_t \mathcal{F}_s\} = \mathbb{E}\{W_t L_t \mathcal{F}_s\}/L_s$
227	Exer. 9.8, q. 2	Replace X_t with Y_t (two places)
227	Exer. 9.8, q. 3	Replace $e^{(-2cy+\nu)/2}$ with $e^{-(2cy+\nu)/2}$. Add $n = 4\lambda\xi/\gamma^2$.
250	after “for the variance”	Replace $-K_t C^\top$ with $-K_t C$.
250	after “and”	Replace $-K_t C^\top$ with $-K_t C$.
254	Second line from bottom	Replace $\log f$ with $-\log f$
280	l. 8	In “... solution v to such ...”, replace v with h
280	6th displayed formula	Replace v with h
308	l. 2	Replace $\max\{Y_t : t \geq 0\}$ with $\max\{\log X_t : t \geq 0\}$