

ERRATA FOR INTRODUCTION TO STOCHASTIC INTEGRATION

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p. 34, line 9. “continuous” should be “right continuous”.

p. 35, line 5. Replace “ $c_0 1_{\{0\} \times F_0}$ ” with “ $\sum_{i=1}^m d_i 1_{\{0\} \times F_{0i}}$ ”.

p. 35, lines 6-7. Replace “ $c_0 \in \mathbb{R}$ and $F_0 \in \mathcal{F}_0$.” with “ $d_i \in \mathbb{R}$ and $F_{0i} \in \mathcal{F}_0$ for $i = 1, \dots, m$.”

p. 35, line 8. Insert “and $\{0\} \times F_{0i}$ for $1 \leq i \leq m$,” before “are disjoint.”

p. 36, line -5. The last term, involving c_0^2 should be replaced with $\sum_{i=1}^d d_i^2 \mu(\{0\} \times F_{0i})$.

p. 39, line -11: Z_t^n should be $Z_t^{n_1}$.

p. 48, line 2: Insert L^2 before martingale.

p. 55, Exercise 6. Add to the assumptions that W can be written as a countable union of sets in \mathcal{H} .

p. 56, Exercise 11. Replace the hint by the following. *Hint:* First prove (2.36) for an \mathcal{R} -simple X and then use a monotone class argument to extend to $X \in \Lambda^2(\mathcal{P}, M)$.

p. 88, line 15: Replace “Lemma 4.4” with “Corollary 4.5” in this line.

p. 95, line -7: Delete closing parenthesis after $\frac{\partial f}{\partial y}$ in (5.5).

p. 97, line 7. “ $V_{\cdot \wedge \tau_n}$ ” should read “ $V_{\cdot \wedge \tau_n} 1_{\{\tau_n > 0\}}$ ”.

p. 115, line -4: $a \neq b$ should be assumed here.

p. 116, line 1: $r \neq R$ should be assumed here.

p. 137, line 5: “partial” can be omitted.

p. 144, Figure 7.3. $\frac{1}{2}\epsilon$ should be $\frac{1}{2\epsilon}$ in the label on the vertical axis.

p. 201, line 10. Insert \int_0^t after $\sum_{i=1}^d$.

p. 209, line -6. “ $X_{t \wedge \tau_n} = n$ ” should be “ $X_{t \wedge \tau_n} \geq n$ ”.

p. 225, line 5. To see that f is Lebesgue integrable on $[0, T]$, note that $Y_t - Z_t$ is the sum of a continuous L^2 -martingale (cf. (10.8)) and a continuous bounded adapted process for $t \in [0, T]$.

- p. 226, lines 6, 7. Replace $E[|\sigma(X_0)|^2]$ with C_σ where C_σ is a constant depending on the bound for σ .
- p. 237, line 1 and (10.39). " $\|f\| + 1$ " should be in the denominator, not the numerator.
- p. 241, line -1. Delete the second B in $\bar{B}B$.
- p. 242, in (10.45), $M_{\tau+}$ should be $\mathcal{M}_{\tau+}$.
- p. 250, line -11. Insert "For the remainder of this section, assume that σ is bounded."
- p. 252, lines 15-16: Delete "By symmetry this is equivalent to considering $\alpha \leq -1$ for $x \in (-\infty, 0)$."
- p. 255, lines 1-3: Replace "for $\alpha < 1$, the process may pass continuously through to $(-\infty, 0)$; and for $-1 < \alpha < 1$, a combination of these behaviors is possible" with "and for $-1 < \alpha < 1$, the process may partially reflect back in to $(0, \infty)$ and partially pass continuously into $(-\infty, 0)$ (skew reflection). For $\alpha \leq -1$, the process must absorb at the origin, as it cannot continuously leave there in a manner consistent with the behavior in (10.52) away from the origin."
- p. 262, Exercise 4: Assume σ is bounded for this Exercise (so that a martingale rather than a local martingale property can be established).
- p. 263, Exercise 5. "Section 10.3" here should read "Section 10.2".
- p. 263, Exercise 7. The exercise is correct as written if $r = 0$ and $\mu = 0$. For non-zero r or μ , in the statement of the Theorem, replace P with \tilde{P} and B with \tilde{B} . Then a_t should be defined by $a_t = X_t/(\sigma \exp(r(T-t))S_t)$.