Chapter 1:

1. Page 2. The second paragraph should read: “To make these questions precise and then answer them, note that the price performs a symmetric random walk in \( n \), where \( n = N_- - N_+ \) is the difference in the number of “down” and “up” days, \( N_- \) and \( N_+ \), respectively.

Thanks to Ronny Straube for this correction.

2. Page 5. The second sentence of Sec. 1.2 should read: “An important starting fact is that the survival probability \( S(t) \) in an absorbing domain is closely related to the time integral of the first-passage probability up to time \( t \) over the spatial extent of the boundary (see Eq. (1.5.7)).”

3. Page 8. The integral in Eq. (1.3.5) is over the range \(-\pi \leq k \leq \pi\); it’s not a contour integral.

4. Page 9. Third line after Eq. (1.3.6): delete the word “gives”. Eq. (1.3.8) should read:

\[
P(x, N) \rightarrow \frac{1}{\sqrt{2\pi Npq}} e^{-\frac{(x-N(p-q))^2}{8Npq}}
\]

Thanks to David Waxman for these three corrections and to Tibor Antal for noting a second error in (1.3.8).

5. Page 9. The second line of the un-numbered formula after Eq. (1.3.8) should read:

\[
\sim e^{ik\langle x \rangle - \frac{1}{2}k^2(\langle x^2 \rangle - \langle x \rangle^2)}, \quad k \rightarrow 0.
\]

6. Page 9. Eq. (1.3.9) should read:

\[
P(x, N) \rightarrow \frac{1}{\sqrt{2\pi N(\langle x^2 \rangle - \langle x \rangle^2)}} e^{-\frac{(x-\langle x \rangle)^2}{2N(\langle x^2 \rangle - \langle x \rangle^2)}}
\]

Thanks to Paul Krapivsky for these corrections.

7. Page 10. In Eq. (1.3.11), the denominator inside the square brackets should be \( 2zq \) for \( x > 0 \) and \( 2zp \) for \( x < 0 \).

Thanks to David Waxman for this correction.

8. Page 11. In Eq. (1.3.13), the left-hand side should read \( \frac{\partial P(n, t)}{\partial t} \).

9. Page 11. In Eq. (1.3.14), the factors \(-ik\) and \(ik\) should be \(ik\) and \(-ik\), respectively. Then the fifth line after this equation should read \( w(k) = w_0(\cos k - 1) + 2i\delta w \sin k \).

Thanks to Ehud Yariv for these corrections.
10. Pages 12 & 13. Three lines after Eq. (1.3.19), the inequality should read \( n \geq q0 \). Two lines after Eq. (1.3.22), there should be a prefactor \( \frac{1}{2\pi i} \) before the integral. In the next line, the variable transformation should be \( u = \sqrt{-s} \). Thanks to Tibor Antal for these corrections.

11. Page 15. Eq. (1.3.29) should read \( c(k, t) = e^{-i(kv+Dk^2)t} \).

12. Page 20. In the third line from the end of the page, (1.4.9) should be (1.4.10).

13. Page 21. In the second line of (1.4.12), the factor \( dt \) is missing in the second line. Thanks to Ehud Yariv for these corrections.

14. Page 22. In Eq. (1.5.6), the factor \( (1 - R) \) should read \( (1 - \mathbb{R}) \).

15. Page 24. In the seventh line from the end of the page, replace “when” by “where”. Thanks to Ehud Yariv for this correction.

16. Page 31. In Eq. (1.6.22), the argument on the left-hand side should be \( \vec{r} \), not \( \vec{r'} \).

Chapter 2:

1. Page 46. The statement of “complete parallelism” in the 4th line is a bit misleading. While the splitting probabilities and the exit times for the discrete random walk and continuum diffusion agree, this correspondence does not extend to all higher moments. Thanks to Tibor Antal for clarifying this point.

2. Page 47. The factor in the second of Eqs. (2.2.16) should be \( (1 - u_0^2) \) not \( (1 - u_0)^2 \).

3. Page 49. In the second line of Eq.(3.2.23), there should appear \( x_0^2 \) inside the square root. This same correction applies on the last line of this page. Thanks to Ehud Yariv for this correction.

4. Page 49. In the second-to-last line: \( j-(s; x_0) \) instead of \( j(s; x_0) \). Thanks to Shai Carmi for this correction.

5. Page 50. On the fifth and sixth lines, the factor \( L - x_0 \) should be \( L - x_0/2 \). Thanks to Ehud Yariv for these corrections.

6. Page 51. Five lines before (2.2.24), the factor \( \delta(t) \) should be \( -\delta(t) \). In the next line, as well as one line before (2.2.24), \( j(L, s) = 1 \) should read \( j(L, s) = -1 \). Eq. (2.2.24) is correct as is. Thanks to Ehud Yariv for these corrections.

7. Page 52. The prefactor in the last line of (2.2.26) is upside down and the sign is wrong. This prefactor should read \( (-1)^n \frac{2\pi i}{L} \). Thanks to Maciej Dobrzynski and Gleb Oshanin for these corrections.

8. Pages 53 & 54. There are several errors. The last line of text on page 53 should read: “and the Laplace transform of the initial condition, \( j(x = 0, s) = 1 \), fixes the constant to be”. Second, the line immediately after the formula at the bottom of page 53 should be followed by the statement: “where we have used the simplification \( v - D\alpha_{\pm} = D\alpha_\mp \)”. The statement immediately after (2.2.29) should then be removed. Third, there should not be a \( D \) in the denominator of Eq. (2.2.29). Finally, the 5th line of text should read: “where \( Pe = \frac{vL}{2D} \) is again the Péclet number and \( P_s \equiv \sqrt{v^2 + 4Ds} \frac{L}{2D} \)”. Thanks to Shai Carmi for some of these corrections.
9. In Eq. (2.2.29), the last term in the denominator should read $c_\alpha e^{-a_\alpha L}$.

10. Page 55. The displayed equation and the line following should read:

$$\tanh \sqrt{Pe^2 + sL^2/D} = \sqrt{1 + sL^2/(DPe^2)}$$

which, in the limit $Pe \to \infty$, gives the criterion $s \approx -4DPe^2/L^2)$ $e^{-2|Pe|} \equiv 1/\tau$.

11. Page 56. Near the bottom of the page, the formula should be $\langle t(x_0)^2 \rangle = 2 \int_0^L C_1(x)dx$, i.e., a factor 2 is missing).

12. Page 57. In the second line, the signs of the $v$ and $D$ terms are *not* opposite to the sense of the corresponding terms in the convection-diffusion equation. Also, 5 lines from the bottom, the length scale is $D/v$ not $D/v^2$.

13. Page 58, first equation, second line, the factor $D$ equals $\delta x^2/2\delta t$, i.e., a factor 2 is missing.

14. Page 59. The solid curve in Fig. 2.5 should be labeled as $2.5t_{\text{max}}/\tau$ and the last parenthetical phrase of the caption should read “(multiplied by 2.5 for visibility)”. Finally, the sentence just before (2.3.13) should read: “The corresponding first-passage time is (with $z \equiv x_{\text{max}}/L$),” while the factor $Pe$ at the end of the first line of (2.3.13) should be smaller.

15. Page 63. Just above (2.3.23), the reference is to (1.6.27) not (1.6.29).

16. Page 64. Two lines above (2.3.24), the boundary conditions should be $g_+(0) = g_+(2Pe) = 0$.

17. Page 74. The second-to-last of Eqs. (2.4.10) should read $P_N = \frac{a}{1-x}P_{N-1}$; i.e., the letter z should be lower case.

18. Page 75. While (2.4.12) is correct, some explanatory text is sloppy. Two lines about (2.4.11), the text should read “This form is valid for $n = 2, 3, 4, \ldots, N$, whereas the equations for $P_0$ and $P_1$ are distinct.” Parenthetically, to reach the un-numbered displayed equation after (2.4.11) one can use tricks like $2a\lambda_{\pm} - 1 = \pm\sqrt{1 - 4a^2}$ as well as $\sqrt{1 - 4a^2} = a(\lambda_+ - \lambda_-)$.

19. Page 75. Line after (2.4.12): replace “completely” by “asymptotically”.

20. Page 76. The line after (2.4.14) should read: “Continuing this procedure to site $N - 2$ gives” $(N - 2$ instead of $N - 1$), and in the next equation replace $P_{N-1}$ on the left-hand side with $P_{N-2}$ and $P_N$ in the second term of the right-hand side with $P_{N-1}$. The next line of text should be: “Then the equation for $P_{N-1}$ gives”, and the following equations should read: $P_{N-1} = aP_{N-2} = \ldots + f_{N-1}P_{N-1}$ or $P_{N-1} = \ldots$.”
Chapter 3:

1. Page 83. In Eq. (3.2.4) the derivative should be with respect to $x$ not $t$.
   Thanks to Carl Gold for this correction.

2. Page 84. In Eq. (3.2.6) there is no factor of $t$ in the square root.
   Thanks to Robin Groenevelt for this correction.

3. Page 86, Eq. (3.2.11). Oy! Is this formula messed up! It should read:
   \[
   \langle x \rangle = \frac{1}{S(t)} \frac{1}{\sqrt{4\pi Dt}} \int_0^\infty x \left[ e^{-(x-x_0)^2/4Dt} - e^{-(x+x_0)^2/4Dt} \right] dx
   \]
   \[
   = \frac{1}{S(t)} \frac{1}{\sqrt{\pi}} \left[ \int_{-\infty}^{\infty} (u\sqrt{4Dt} + x_0) e^{-u^2} du - \int_{\infty}^{\infty} (u\sqrt{4Dt} - x_0) e^{-u^2} du \right]
   \]
   \[
   = \frac{1}{\sqrt{\pi} S(t)} \left[ \int_{-\infty}^{\infty} u\sqrt{4Dt} e^{-u^2} du + \left( \int_{-\infty}^{x_0} + \int_{x_0}^{\infty} \right) x_0 e^{-u^2} du \right]
   \]
   \[
   \sim \frac{x_0}{S(t)} \sim \sqrt{\pi Dt} \quad \text{as } t \to \infty.
   \]
   Thanks to Shai Carmi for this correction.

4. Page 87. In Eq. (3.2.12) the prefactor in the second term should be $e^{-vx_0/D}$. Similarly, in the first and also the third line of text below this equation the factor should read $e^{-vx_0/D}$.

5. Page 88. On line 9, the flux should read $-(vc - Dc')$. In the line after Eq. (3.2.14), $u^2 = x^2/4Dt'$. Thanks to Shai Carmi for these corrections.

6. Page 88. Replace $x$ by $x_0$ in the line after Eq. (3.2.14) and in the first line of (3.2.15). Also, the fontsize for the first factor of $Pe$ in the 3rd line of this formula should be larger.

7. Page 89. The second half of of Eq. (3.2.16) should read:
   \[
   \left( \frac{x_0}{\sqrt{Dt}} \right)^3 \frac{1}{\sqrt{4\pi}} \frac{1}{Pe^2} e^{-Pe^2Dt/x_0^2} = \sqrt{\frac{4}{\pi}} \frac{x_0\sqrt{Dt}}{(vt)^2} e^{-v^2t/4D}
   \]
   Thanks to David Mukamel for these two corrections.

8. Page 93. The prefactor in Eq. (3.3.1) should be $\frac{1}{\sqrt{4Dt}}$.

9. Page 93. In the line below Eq. (3.3.1), $c_>$ and $c_<$ should be interchanged.
   Thanks to Shai Carmi for this correction.

10. Page 94. In the first line of Eq. (3.3.3), the last factor should be $e^{-\alpha+x_0}$. Thanks to Shai Carmi for this correction.

11. Page 99. Last two lines of Eq. (3.4.4): the denominator factor should be $2(t - 1)$ not $2t - 1$.

12. Page 99. The last factor in Eq. (3.4.5) should be $\sqrt{\frac{1}{\pi t}} 2^t$. Thanks to Shai Carmi for this correction.
13. Page 102. The first line of Eq. (3.4.10) should read

\[
P(x, z) \left[ 1 - \frac{1}{P(0, z)} \right]^{m-1}
\]

Thanks to Shai Carmi for this correction.

14. Page 103. The second argument of \( F \) in Eq. (3.4.12) should be \( j \), not \( n \). In the line above Eq. (3.3.14), the references should be to Eq. (1.2.3), not (1.2.1). In Eq. (3.4.14), the exponent should be \( m \), not \( m - 1 \). Finally, the equivalence between Eqs. (3.4.14) and (1.3.11) mentioned at the bottom of the page holds only in the limit \( z \to 1 \) (and up to an overall factor of \( \sqrt{2} \)).

Thanks to Shai Carmi for these corrections.

15. Page 103. Eq. (3.4.15) should read

\[
G^{(m)}(0, n) \sim \sqrt{\frac{2}{\pi n}} e^{-m^2/2n}
\]

16. Page 105. Three lines above Eq. (3.4.17), the reference should be to Eq. (3.4.7). The second line of Eq. (3.4.17) should read

\[
\frac{2}{\pi \sqrt{k(n-k)}}
\]

Also, the limits of integration in Eq. (3.4.19) should be from \( k \) to \( n \).

Thanks to Shai Carmi for these corrections.

17. Page 108. Add the word “with” in the 9th line. It should read “… returned to site 1 with probability \( r \)”.

Thanks to Ronny Straube for this correction.

18. Page 114. In the second to last line, the slope is \( c_0/\sqrt{D} \).

Thanks to Shai Carmi for this correction.

Chapter 4:

1. Page 123. Sec. 4.3.2, third line: “Flyvbjerg”, not “Flyvbjerg”.

2. Page 130. The last term in the equation at the top of the page should read \( \frac{1}{2}(r_{\text{in}} + r_{\text{out}}) \frac{\partial^2 P}{\partial n^2} \).

Thanks to Paul Krapivsky for this correction.

3. Page 142. Eqs. (4.5.5) should read:

\[
\langle t \rangle = \frac{D}{v_1 v_2} \left\{ (1 - e^{-v_1 x_1/D}) \left[ 1 - e^{v_2 (x_1-1)/D} \right] + \frac{v_2 x_1}{D} + \frac{v_1 (1 - x_1)}{D} \right\} + \frac{D}{v_1^2 v_2} \left\{ v_2^2 e^{-v_1 x_1/D} - 1 \right\} + \frac{v_1^2}{D} \left[ e^{v_2 (x_1-1)/D} - 1 \right] \}
\]

while the correct form of (4.5.6) is:

\[
\langle t \rangle \to \begin{cases} \frac{x_1}{v_1} + \frac{1 - x_1}{v_2}, & v_1, v_2 \to +\infty, \\ \frac{D}{|v_1 v_2|} e^{v_1 |x_1| + v_2 (1 - x_1)} & v_1, v_2 \to -\infty. \end{cases}
\]

Thanks to Nan Shi for these corrections.
4. Page 151–152. The sign of the third term on the right-hand side of Eq. (4.6.1) should be plus, not minus. The prefactor on the right side of Eq. (4.6.5) should be 1 not 4, and the prefactor on the right side of Eq. (4.6.6) should be \( \frac{1}{2} \) not 2. 

Thanks to Alex Petersen for these corrections.

5. Page 152. Remove the word “a” four lines after Eq. (4.6.6).

6. Page 166. The double subscript \( y_{y1} \) should simply be \( y_1 \).

Thanks to Robin Groenevelt for this correction.

Chapter 5:

1. Page 171. Eq. (5.2.4) is appropriate for a discrete-time random walk, but the process defined in Eq. (5.2.1) is in continuous time. Thus (5.2.4) should read

\[
P_n(t) = \int_0^t F_n(t') P_0(t - t') \, dt' + \delta_{n,0} e^{-t}. \tag{1}
\]

The exponential factor in the second term gives the probability that the walk has not moved before time \( t \), in which the hopping rate along each bond is \( 1/q \). After performing the Laplace transform, the correct form of (5.2.5) is

\[
F_n(s) = \frac{P_n(s) - \delta_{n,0}/(s+1)}{P_0(s)}. \tag{2}
\]

Similarly, the correct form of (5.2.6) is

\[
F_0(s) = 1 - \frac{1}{(s+1)P_0(s)}. \tag{3}
\]

The fundamental \( s \to 0 \) results in the next two formulae remain unchanged.

2. Page 202. Seventh line in section 5.5.3.1, a factor should read \( 1/(3 + 2\epsilon) \), not \( 1/(3 + 2\epsilon) \).

Chapter 6:

1. Page 209. The result in the second of Eq. (6.2.2) actually gives \( E_-(r) \). The correct result is:

\[
E_+(r) = \frac{\ln(r/R_-)}{\ln(R_+/R_-)}.
\]

Thanks to Ronny Straube for this correction.

2. Page 211. In Eq. (6.2.5b), the last line is for \( d > 2 \); also the last factor should be \( R_- \), not \( R_+ \). 

Thanks to Keith Cheveralls for the first correction and Mika Pruikkonen for the second.

3. Page 215. In the line after Eq. (6.3.3b), the factor should read \( (a/r_0)^{d-2} \).

4. Page 219. The formulae for the derivatives of the Bessel functions before Eq. (6.4.3) are wrong. They should read: \( I'_\nu = -\frac{\nu}{2} I_\nu + I_{\nu-1} \) and \( K'_\nu = -\frac{\nu}{2} K_\nu - K_{\nu-1} \).

5. Page 220. Eq. (6.4.5) has some small errors. The first line should contain a minus sign after the equivalence. In the third line, the leading plus should be replaced by \( \mp \) and the exponent \( \nu \) should be replaced by \( -\nu \). 

Thanks to Enrique Abad for these corrections.
6. Pages 226–227. In the first formula in subsection 6.5.2.2 and in the first un-numbered formula after Eq. (6.5.6), the prefactor should be $\sqrt{\frac{D}{\pi}}$ rather than $\frac{D}{\pi}$.
Thanks to Ronny Straube for these corrections.

Chapter 7:

1. Page 236. First sentence of the third paragraph: the phrase “We thus define $c(r, \theta, t = 0)\ldots$” is missing an equal sign.

2. Page 240. The exponent in Eq. (7.3.2) should be $\nu$, not $\nu_0$.

3. Page 243. In the first line of Eq. (7.4.3), the fraction $\frac{1}{2\pi D}$ should be replaced by $D$.
Thanks to Robin Groenevelt for these corrections.

Chapter 8:

1. Page 261. In Eq. (8.2.10) the factor $\ln w$ in the exponential should read $\ln q$ and not $\ln w$.

2. Page 266. The expressions for $\Theta_{\text{end}}$ and $\beta_{\text{end}}$ should read:

$$
\Theta_{\text{end}} = \pi - \cos^{-1} \frac{D_3}{\sqrt{(D_1 + D_3)(D_2 + D_3)}},
$$

$$
\left[2 - \frac{2}{\pi} \cos^{-1} \frac{D_3}{\sqrt{(D_1 + D_3)(D_2 + D_3)}}\right]^{-1}.
$$

Thanks to Alan Bray for these corrections.

3. Page 269. In figure 8.6(a) the labels $1 = 3$ and $2 = 3$ should be transposed.

4. Page 284. In Eq. (8.4.24), the time-dependent prefactor should be $t^{-3/2}$, not $t^{-1/2}$.
Thanks to Pu Chen for this correction.