

p.7. Eq. (1.12) CHANGE $j = 1$ TO $j = 0$. (Thanks to Joonyong Choi.)

p.7 l.-4 CHANGE $\hat{f}^{(p)}$ TO $\hat{f}^{(k)}$. (Thanks to Cheng-Gang Li.)

p.7 l.-4 CHANGE $j = 1$ TO $j = 0$. (Thanks to Joonyong Choi.)

p.14 Figure 1.4 caption CHANGE $v = 2.0$ TO $v = 3.0$

p.18 l.-2 should read

$$f(x) = \begin{cases} pC\alpha x^{-\alpha-1} & \text{if } x > C^{1/\alpha}; \\ 0 & \text{if } -C^{1/\alpha} < x < C^{1/\alpha}; \\ qC\alpha|x|^{-\alpha-1} & \text{if } x < -C^{1/\alpha}. \end{cases}$$

p.19 Eq. (1.34) There is an extra q inside the integral on the first two lines. (Thanks to Cheng-Gang Li for spotting this.)

p.33 l.-7: CHANGE $x = 0$ TO $y = 0$. (Thanks to Cheng-Gang Li.)

p.39 line 2 CHANGE $y^{-\alpha}dy$ to $y^{-\alpha}dy dx$

p.41 lines -9 to -7 should read (thanks, Cheng-Gang Li)

$$\partial_t f(t) = \begin{cases} 0 & t < 0 \\ f(0) \delta(t) & t = 0 \\ f'(t) & t > 0 \end{cases}$$

p.44 l.-9 should read (thanks, Cheng-Gang Li)

$$= -\frac{d}{du} \left[s^{-1} e^{-us^\beta} \right] = s^{\beta-1} e^{-us^\beta}$$

p.54 l.-3 CHANGE $g(y)$ TO $ikg(y)$ (thanks, Cheng-Gang Li)

p.57 l.-7 CHANGE k TO x twice (thanks, Cheng-Gang Li)

p.58 l.-2 CHANGE k TO x twice (thanks, Cheng-Gang Li)

p.78 l.13 CHANGE $x > 0$ TO $y > 0$ (thanks, Cheng-Gang Li)

p.81 l.-8 CHANGE $x > 0$ TO $y > 0$ (thanks, Cheng-Gang Li)

p.83 l.7 should read (thanks, Cheng-Gang Li)

$$\mu_1 = \mathbb{E}[W_n] = p \int_{C^{1/\alpha}}^{\infty} y C\alpha y^{-1-\alpha} dy + q \int_{-\infty}^{-C^{1/\alpha}} y C\alpha (-y)^{-1-\alpha} dy$$

p.88 l.5 DELETE “The function $R(x) = x^\rho[2 + \cos(\log x)]$ is $\text{RV}(\rho)$.”
In fact this function is not RV. Thanks to Cheng-Gang Li for bringing this to our attention.

p.89 ll.3,4 CHANGE the TO then. (Thanks to Cheng-Gang Li.)

p.111 Eq. (4.48) CHANGE $g(r)$ TO $g_\beta(r)$. (Thanks, Cheng-Gang Li.)

p.125 last line CHANGE 5.8 TO 5.3

p.126 l.-3 CHANGE $v = 2.0$ TO $v = 3.0$

p.127 Figure 5.8 caption CHANGE $v = 2.0$ TO $v = 3.0$. (The R code is correct.)

p.128 Figures 5.12 and 5.13 the range of \mathbf{r} in the R codes should be longer to show the sharp peak at $x = 0$. The code on the web was corrected on 11/15/2012 using $\mathbf{dr}=0.5$ and $\mathbf{r}=\mathbf{seq}(\mathbf{dr}, 5000.0, \mathbf{dr})$. The graphs on the next page of this document were made using the corrected code.

P.148, line +9: CHANGE $2D \neq 0$ TO D is invertible. (Thanks, Cheng-Gang Li.) This is needed later on p.148 l.-1

p.162 l.16 CHANGE $n^{1/\alpha}$ TO $n^{1/2}$ (Thanks, Cheng-Gang Li.)

p.171 l.2 CHANGE θ_j TO k_j

p.171 l.11 should read (thanks, Cheng-Gang Li)

$$\hat{p}(k, t) = \mathbb{E} [e^{-ik \cdot (vt + Z_t)}] = \exp \left(-ik \cdot vt + Dt \int_{\|\theta\|=1} (ik \cdot \theta)^\alpha M(d\theta) \right).$$

p.175 l.8 CHANGE))) TO]]. (Thanks to Cheng-Gang Li.)

p. 226 line 5 change $(1-x)^a(1+x)^b$ to $(1-x)^{-a}(1+x)^{-b}$ so that

$$2^n n! P_n^{(a,b)}(x) = (-1)^n (1-x)^{-a} (1+x)^{-b} \frac{d^n}{dx^n} \{ (1-x)^{a+n} (1+x)^{b+n} \}.$$

p. 245 line 14 $d = -\alpha = H - (1/2)$, not $-H + (1/2)$.

(Thanks to Farzad Sabzikar for spotting this.)

p.283 The correct title for reference [98] is: Analytical time-domain Greens functions for power-law media.

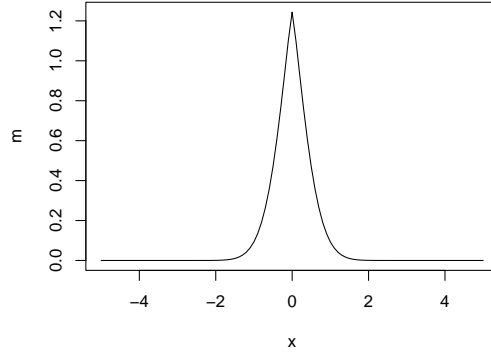


Figure 5.9. Solution to time-fractional diffusion equation (5.11) at time $t = 0.1$ with $\beta = 0.75$ and dispersion $D = 1.0$

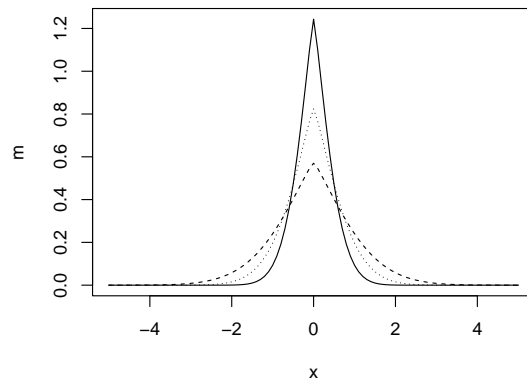


Figure 5.10. Solution to time-fractional diffusion equation (5.11) at times $t_1 = 0.1$ (solid line), $t_2 = 0.3$ (dotted line), and $t_3 = 0.8$ (dashed line) with $\beta = 0.75$ and dispersion $D = 1.0$.