Corrections for
Radiative Transfer in the Atmosphere and Ocean
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1. Page xvi, bottom of page: Add:

   The following Appendices are available via the web at http://odin.mat.stevens-tech.edu/rttext/

F	**Elementary Concepts**
G	**Primer on Absorption and Scattering**
H	**Electromagnetic Radiation: The Plane Wave**
I	**Representation of Polarized Light**
J	**Scaling Transformation for Anisotropic Scattering**
K	**The Discrete Ordinate Method: Numerical Aspects**
L	**Spherical Shell Geometry**
M	**Reciprocity for the BRDF**
N	**Isolation of the Azimuthal Dependence**
O	**The Streaming Term in Spherical Geometry**
P	**Reciprocity, Duality and the Effects of Surface Reflection**
Q	**Removal of Overflow Problems in the Intensity Formula**
R	**Integration of the Planck Function over a Spectral Interval**
S	**Computation of the Normalized Associated Legendre Polynomials**

2. Page xxiii, line 5, "http://lasp.colorado.edu/$\sim$ rttext" should be "http://odin.mat.stevens-tech.edu/rttext/".

3. Page 15, in Fig. 1.5, "θ" should be the other acute angle within the triangle.

4. Page 20, in Eq. (1.15), "$\bar{F}^s$)" should be "$\bar{F}^s$".

5. Page 43, in the upper part of Fig. 2.2, "$d\omega'$" should be "$d\omega$".

6. Page 66, line 7, "parameter γ" should be "parameter $\gamma/2\pi$".

7. Page 74, Eq. 3.23 should be changed to read:

$$p(\cos\Theta) = \frac{n\sigma_n(\cos\Theta)}{n\int_{4\pi}d\omega\sigma_n(\cos\Theta)/4\pi}$$

8. Page 80, line 18, in Eq. (3.34), "$\mathbf{e}^{i\omega t}$" should be "$e^{i\omega t}$".

9. Page 80, line 27, "r_0^3" should be "r_0^2".

10. Page 80, line 28, "$r_0 = e^2 m_e c^2/4\pi\epsilon_0$" should be "$r_0 = \frac{e^2}{4\pi\epsilon_0 m_e c^2}$".

11. Page 90, in Fig. 4.3, "Wavelength (lm)" should be "Wavelength (μm)".

12. Page 94, in Eq. (4.5), "$\nu_m T = 5.88 \times e^{10}$" should be "$\nu_m = 5.88 \times e^{10}T$".

13. Page 164, lines 1 and 2, "is the *photolysis rate J*, defined as the local rate of a photoabsorption process" should be "is the *photolysis rate coefficient*, defined as the local rate (per molecule) of a photoabsorption event".

14. Page 164, line 5, "photolysis rate for" should be "photolysis rate coefficient for".

15. Page 164, line 7, "*The photolysis rate*" should be "*The photolysis rate coefficient*".

16. Page 164, in Eq. (5.80), "$\alpha^i(\nu)$" should be "$\alpha_n^i(\nu)$".

17. Page 164, in Eq. (5.80), "$[m^{-3}\cdot s^{-1}]$" should be "$[s^{-1}]$".

18. Page 185, line 31, "atmospher" should be "atmosphere".

19. Page 186, in Eq. (6.43) "$\rho_s(-\mu_0; m_{rel})$" should be "$\rho_s(-\mu^a; m_{rel})$".

20. Page 251, in Eq. (7.119), "$(1 - 3g\bar{\mu}^2)$" should be "$(1 + 3g\bar{\mu}^2)$".

21. Page 291, the whole content of lines 14-22 should be changed to:

$$
\begin{aligned}
Q^\pm(\tau,\mu_i) &= \pm\mu_i^{-1}Q'^\pm(\tau,\mu_i), \qquad i=1,2, \\
\alpha_{11} &= \mu_1^{-1}[w_1\frac{a}{2}p(\mu_1,\mu_1)-1] = \mu_1^{-1}[w_1\frac{a}{2}p(-\mu_1,-\mu_1)-1], \\
\alpha_{12} &= \mu_1^{-1}w_2\frac{a}{2}p(\mu_2,\mu_1) = \mu_1^{-1}w_2\frac{a}{2}p(-\mu_2,-\mu_1), \\
\alpha_{21} &= \mu_2^{-1}w_1\frac{a}{2}p(\mu_1,\mu_2) = \mu_2^{-1}w_1\frac{a}{2}p(-\mu_1,-\mu_2),
\end{aligned}
$$

$$\alpha_{22} = \mu_2^{-1}[w_2 \frac{a}{2} p(\mu_2, \mu_2) - 1] = \mu_2^{-1}[w_2 \frac{a}{2} p(-\mu_2, -\mu_2) - 1],$$

$$\beta_{11} = \mu_1^{-1} w_1 \frac{a}{2} p(\mu_1, -\mu_1) = \mu_1^{-1} w_1 \frac{a}{2} p(-\mu_1, \mu_1),$$

$$\beta_{12} = \mu_1^{-1} w_2 \frac{a}{2} p(-\mu_2, \mu_1) = \mu_1^{-1} w_2 \frac{a}{2} p(\mu_2, -\mu_1),$$

$$\beta_{21} = \mu_2^{-1} w_1 \frac{a}{2} p(-\mu_1, \mu_2) = \mu_2^{-1} w_1 \frac{a}{2} p(\mu_1, -\mu_2),$$

$$\beta_{22} = \mu_2^{-1} w_2 \frac{a}{2} p(-\mu_2, \mu_2) = \mu_2^{-1} w_2 \frac{a}{2} p(\mu_2, -\mu_2).$$

22. Page 292, lines 22-23,

$$D^+ = \frac{a}{2}\{p(\mu_i, \mu_j)\} = \frac{a}{2}\{p(-\mu_i, -\mu_j)\} \qquad i, j = 1, \ldots, N,$$

$$D^- = \frac{a}{2}\{p(-\mu_i, \mu_j)\} = \frac{a}{2}\{p(\mu_i, -\mu_j)\} \qquad i, j = 1, \ldots, N.$$

should be

$$D^+ = \frac{a}{2}\{p(\mu_j, \mu_i)\} = \frac{a}{2}\{p(-\mu_j, -\mu_i)\} \qquad i, j = 1, \ldots, N,$$

$$D^- = \frac{a}{2}\{p(-\mu_j, \mu_i)\} = \frac{a}{2}\{p(\mu_j, -\mu_i)\} \qquad i, j = 1, \ldots, N.$$

23. Page 295, in Eq. (8.36), "$p(u_i, u_j)$" should be "$p(u_j, u_i)$".

24. Page 296, in Eq. (8.38), "$p(u_i, u_j)$" should be "$p(u_j, u_i)$".

25. Page 389, bottom and page 390, top: the two sentences

"If we use an averaging interval that contains a large number of lines of varying strength, it is possible to define a continuous distribution function of line strengths, $p(S)$, such that S and $S + dS$ is $p(S)dS$. In the limit of an infinite number of lines, the mean beam absorptance is written"

should be changed to

"We define a function p, such that $p(S)dS$ is the number of lines of strength in the interval $S, S + dS$. In the limit of an infinite number of lines, the interval dS can be made very small, and the mean beam absorptance may be written as an integral".

26. Page 446, line 7, The sentence:

"The distribution of temperature from Eq. 12.21 is shown in Fig. 12.2..."

should be changed to:

"The distribution of temperature from Eq. 12.18 is shown in Fig. 12.2..."

27. Page 446, line 8, "$\tau^*/2\bar{\mu} = 0.63$" should be "$\tau^*/2\bar{\mu} = 1.127$".

28. Page 447, line 3 from bottom, "(see Eq.5.74)" should be "(see Eq.5.77)".

29. Page 506, Eq. (E.1) should be changed to read "$\sin\theta_i / \sin\theta_t = c_i/c_t = m_t/m_i \equiv m_{rel}$".

30. Page 506, line 9, "m_r" should be "m_t".

31. Page 507, in Eq. (E.4), "m" should be "m_i" (note that "m" appears twice).

32. Page 508, last equation in (E.10), "m_r" should be "m_i".

33. Page 509, in Eqs.(E.18) and (E.19) "m_r" should be "m_{rel}".

34. Page 509, in Eq.(E.19) "$\mathcal{T} = 2m_t$" should be "$\mathcal{T}_F = 2m_{rel}$".