Errata for the First Printing of *Pedrottis' Introduction to Optics, 4th ed.*

rayfshiell@trentu.ca **Nov 13, 2025**

The first and second printings may be distinguished from each other based on the **top line of the table on page xxvi**:

In the **first printing** this reads:	**Physical Optics (=Wave Optics)**	**Laser Optics**
In the **second printing** this reads:	**Traditional Course: A Survey of Optics**	**Traditional Course: Emphasis on Ray Optics**

Corrections given below are listed by chapter. Line numbers refer to lines of text omitting equations, headings, figures, and figure captions. "IT" stands for *integrated testlet*.

Preface

p. xxvi, top line: Change to: "Traditional Course: A Survey of Optics" and "Traditional Course: Emphasis on Ray Optics".
p. xxvii, top line: Change to: "Physical Optics (=Wave Optics), cont'd" and "Laser Optics, cont'd".

Chapter 1: The Optical Landscape

p. 11, footnote 11: Change "*Commission Internationale de l'éclairage*" to "*Commission Internationale de l'Eclairage*".
p. 12, line 5: Change to: "This region is often subdivided into categories, such as **UV-C** in the range 100–280 nm, **UV-B**…".

Chapter 2: Ray Optics

p. 28, Table 2.1: Change both occurrences of "see Chapter 3" to "see Chapter 11".
p. 32, line 33: Change to: "We now know that some degree of bending (which we attribute to diffraction) does occur, and requires an extension of Huygens' original theory through both an **obliquity factor** and consideration of wavelet amplitudes and phases, introduced by Fresnel, and discussed in Chapter 21."
p. 82, Figure 2.41: Change ω to w.
p. 98, Qu. 2.28: Change "Abbé's method" to "Abbe's method".

Chapter 3: Understanding Optical Instruments

p. 135, line 22: Change the text to read "If instead the specimen is illuminated by a collimated beam then the diffracted field forms at the back focal plane of the objective which propagates to the image plane of the objective.".
p. 135, footnote 19: Change "Abbé" to "Abbe".
p. 158, Qu. 3.11: Change the text to read, "…the average of the focal lengths, measured in cm, is, for an image…".

Chapter 4: Waves

p. 166, footnote 2: Change $\cos(\theta)$ to $\sin(\theta)$.
p. 178, line 18: Change the text to read, "…far-field beam divergence, θ_{FF}, given here in radians, is larger…".
p. 179, line 19 & **p. 183**, line 13: Change $\vec{\mathbf{k}} = (\vec{\mathbf{E}} \times \vec{\mathbf{B}}) / \omega$ to $\vec{\mathbf{B}} = (\vec{\mathbf{k}} \times \vec{\mathbf{E}}) / \omega$.
p. 184, line 27: Change "along the +*x*-direction" to "along the +*z*-direction".
p. 189, Qu. 4.17: Change "a harmonic wave equation for…" to "an expression for the…".

Chapter 5: Light Sources, Displays, and Detectors

p. 211, line 15, change "Comic Microwave Explorer (COBE)" to "Cosmic Background Explorer (COBE)"
p. 233, Qu. 5.14: Change the text to read, "(spins aligned; triply degenerate)" and "(spins opposed; singly degenerate)".

Chapter 6: Superposition of Waves

p. 246, line 2: Change $180° - \alpha_2 - \alpha_1$ to $180° - (\alpha_2 - \alpha_1)$.
p. 247, line 24: Change the text to read, "…phased overlapping beams is (on average) simply the sum…".
p. 250, footnote 4: Change the text to read, "…a negative sign in the equation analogous to Eq. (6.35), although …".

p. 254, Figure 6.7(c): Change $E_0^{\,2}$ to $4E_0^{\,2}$.

p. 259, Qu. 6.3: Change "phase constants" to "initial phases".

p. 260, Qu 6.11: Change "given by Eq. (6.35)" to "given by Eq. (6.34)".

p. 260, Qu. 6.16: In (a) change to: $\upsilon_g = \dfrac{c}{\sqrt{\varepsilon_r}}\left(1+\dfrac{\omega}{2\varepsilon_r}\dfrac{d\varepsilon_r}{d\omega}\right)^{-1}$; In (b) change to: $\upsilon_g \cong c\left(1+\dfrac{\omega^2 A}{(\omega_0^2-\omega^2)^2}\right)^{-1}$

p. 260, Qu. 6.17: Change equation to: $n = A + B\lambda_0$

p. 260, Qu. 6.18: Change the last sentence to begin "Derive the equation analogous to Eq. (6.49) for the group velocity as a function of the wavelength *inside* the medium, λ, and from this show that…"

p. 261, IT, line 6: Change the text to read, "…where $\varepsilon_j = \varepsilon_0 + j\delta$, and *j* runs from 1 to *N*, which of the following…".

Chapter 8: Interferometry and Multilayer Films

p. 308, Eq. (8.15): Add a tilde to E_0.

p. 317, last sentence: Change to "This depends on the width of the transmittance peaks and to determine this we adopt the somewhat arbitrary criterion that the *minimum separation between two peaks that allows them to be resolved is the FWHM of the peaks*."

Chapter 9: Coherence

p. 356, line 1: Change "… the periodic top hat function of Figure 9.6 is plotted …" to "… a periodic top hat function with a duty cycle of around 25% is plotted …".

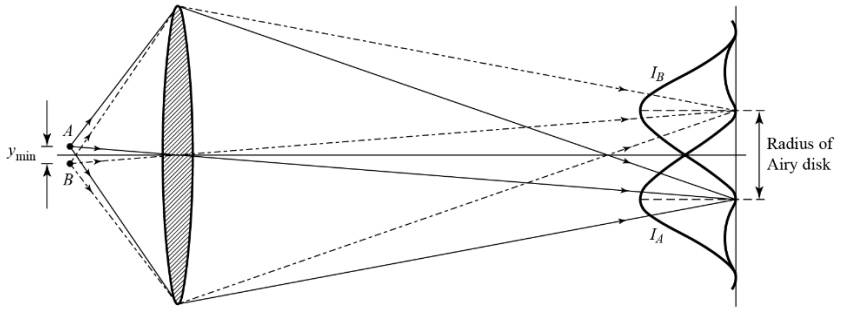
Chapter 10: Fraunhofer Diffraction

p. 378, line 4 change "introduced in Section 9.5" to "introduced in Section 9.5.2"

p. 389, line 35: Change to: "…of their Airy disks, as shown for the analogous case of two thin slits in Figure 10.9.".

p. 390, Figure 10.9 caption: Change to: "…images from two thin slits, with sinc^2 intensity behavior, that just…".

p. 391, Figure 10.10: replace with the better-scaled figure shown below:



p. 391, line 5: Change to: "…the numerical aperture of this lens measured from the object side. See Section 3.7 for more details.".

Chapter 11: Prisms, Diffraction Gratings, and Spectrometers

p. 408, line 6, as it is a first definition, change "*interstellar medium*" to "**interstellar medium**"

p. 412, line 17, change "**Cauchy's equation (**" to "**Cauchy's equation** (" - that is unbold the opening bracket

Chapter 12: Reflection and Transmission at Surfaces

p. 450, equation preceding Eq. (12.11): Change to: $E_1^{\perp,\text{away}} A - E_2^{\perp,\text{towards}} A = \sigma A / \varepsilon_0$.

p. 450, Eq. (12.11): Change to: $E_1^{\perp,\text{away}} - E_2^{\perp,\text{towards}} = \sigma / \varepsilon_0$.

p. 450, line 10: Change "is discontinuous by" to "is discontinuous due to".

p. 454, Eq. (12.30): Change middle equation to $\tilde{\mathbf{E}}_r = \left(\tilde{E}_r \cos\theta_r\, \hat{\mathbf{x}} + \tilde{E}_r \sin\theta_r\, \hat{\mathbf{z}}\right) e^{i(\vec{\mathbf{k}}_r \cdot \vec{\mathbf{r}} - \omega t)}$.

Chapter 13: Optical Fibers and Communications Technology

p. 474, line 5: Change "Imaging can be achieved…" to "Image transmission can be achieved…".
p. 485, line 16: Change second m_x to m_y.

Chapter 14: Mathematical Treatment of Polarization

p. 517, line 17: Interchange $\alpha = 0°$ and $\alpha = 90°$.
p. 520, line 1: Change the text to read "…with negative angular frequency term, is…".
p. 522, line 8: Remove the tildes from $\tilde{E}_{0x}$ and $\tilde{E}_{0y}$.
p. 522, line 9: Change the text to read "…the major axis (if $E_{0x} > E_{0y}$) or minor axis (if $E_{0y} > E_{0x}$) inclined at…".
p. 523, equation preceding Eq. (14.14): Change Ψ to ψ.
p. 530, footnote 8: Change equation to $\mathbf{M}' = \mathbf{R}(\theta)\mathbf{M}\,\mathbf{R}^{\mathrm{T}}(\theta)$.
p. 531, Eq. (14.24): Change $\mathbf{M}_{\mathrm{LP},\theta}$ to $\mathbf{M}_{\mathrm{Rot},\beta}$.
p. 533, line 16: Change "be seen to be positive" to "be seen to be negative".
p. 537, line 19 & line 20 & footnote 11: Change "passes only" to "passes without loss" and "the polarization of interest" to "this polarization".
p. 537, footnote 11: Change "$+45°$ to the slow (and also the fast)" to "$-45°$ to the slow (and $+45°$ to the fast)".
p. 537, Eq. (14.28) & **p. 538**, Eq. (14.31): Remove minus signs from $S_3 = -2\,\mathrm{Im}(\tilde{E}_{0x}\tilde{E}_{0y}^*)$ and $S_3 = -2\left\langle \mathrm{Im}(\tilde{E}_{0x}\tilde{E}_{0y}^*)\right\rangle$ respectively.

Chapter 15: Polarization in Practice

p. 553, line 16: Change the text to read "…which then contains four $CaCO_3$ molecules…".
p. 556, line 13: Change the text to read "…with $\Delta\varphi = (4m+1)\pi/2$ for an *m*th-order $\lambda/4$-plate".
p. 561, line 7: Change "1 dm (= 10 mm)" to "1 dm (= 10 cm)".
p. 563, Fig. 15.20, caption, move 2nd paragraph: "Note that… for quartz." to immediately after Eq. (15.10).
p. 564, line 4: Change "Using Eq. (13.10)" to "Using Eq. (15.10)".
p. 567, Qu. 15.5: Change the penultimate question to "Polarization state of outgoing ray(s)?".
p. 568, Qu. 15.10: Change the text to read "…see Figure 15.25; note this figure applies to a positive uniaxial crystal)."
p. 568, Qu. 15.13: Add "linear" in front of "polarizer".
p. 569, Qu. 15.15: Change "$20.5°$" to "20.5 (deg/dm)(cm^3/g)".
p. 569, Qu. 15.20: Change the text to read "…vary between different regions…".
p. 569, Qu. 15.21: Change the text to read "…light at 589 nm strikes the plate…".

Chapter 16: Light-Matter Interactions

p. 578, line 9: Change "…are of a similar size to the wavelength…" to "…are larger than the wavelength…".
p. 578, footnote 7: Change "wavefunctions" to "wave functions"
p. 586, line 8: Change the text to read, "…and spontaneous emission rates per unit volume were given…".
p. 592, first paragraph: change "rate" to "rate per unit volume", and change to: "…N_1 may be 4 /m^3 and N_2 may be 9 /m^3…".
p. 592, line 5: Change expression to $(g_2/g_1 \times 0.03) \times g_1 \times (N_1/g_1)$.
p. 595, Eq. (16.41): Add brackets to the integrand so this is $E_0 \exp\left((i(\omega - \omega_{12}) - 1/2\tau_2)t\right)$.
p. 595, Eq. (16.42): Change the denominator to $(-i(\omega - \omega_{12}) + 1/2\tau_2)$.
p. 597, Eq. (16.46) & **p. 599**, part (a): Change to $\Delta\nu_D = \frac{2\nu_{12}}{c}\sqrt{\frac{2k_{\mathrm{B}}T\ln(2)}{M}}$.
p. 602, IT, line 6: Change $\sigma_{21}(\nu_{12})$ for the Ar^+ laser to 2.8×10^{-12} cm^2.

Chapter 17: Lasers and Laser Operation

p. 612, line 24: Change "is thousands of kilometers" to "is several kilometers".
p. 645, IT, part (iv): Change answer **C** to $1.2\ \mu\mathrm{J}$.

Chapter 18: Laser Beams and Laser Cavities

p. 651, footnote 2nd line, equation has been omitted – should read "deduced that $\tilde{q}(0) = z + iz_0$, with "

p. 670, line 8: Change the expression to $(\pi w_{01}^2 / \lambda)^2 \gg (Z_1 - f)^2$.

p. 670, line 19: Change to "These modes are commonly encountered as they have the lowest loss for fixed-size mirrors, which is why we examined them so thoroughly."

p. 671, footnote 14: Change "wavefunctions" to "wave functions"

p. 677, Qu. 18.7(c): Change the equation to $w_0^2 = \frac{\lambda d}{\pi}\left[\frac{g_1 g_2 (1 - g_1 g_2)}{(g_1 + g_2 - 2 g_1 g_2)^2}\right]^{1/2}$.

p. 678, Qu. 18.13: Change the last sentence to read "…be formed from the matrices?".

p. 680, Qu. 18.31(b): Change text to read "…coincide with the 0 , 0 , q + 1 mode"

Chapter 20: Fourier Optics: Imaging and Spectroscopy

p. 737, footnote 9, publisher was omitted from reference, to be consistent, change "Concepts of Classical Optics, " to "Concepts of Classical Optics, Dover Publications," .

p. 740, first equation in box, change denominator from "soise" to "noise", change subscript "FTS" to "FT" to be consistent with the rest of this section.

p. 745, IT, part (ii): Change expression for the resolving power to $\mathcal{R}_{\text{Mich}} = 8 f_{\text{Mich}}{}^2 / a^2$. Change "$\mathcal{R}_{\text{Mich}}$" on the right hand side of all answers to "$\mathcal{R}_{\text{Mich}}^{-1}$".

p. 745, IT, part (iii): Change the last sentence to, "By writing the general grating equation, Eq. (11.26), in terms of the semi-sum and semi-difference of θ_i and θ_m (so $\theta = (\theta_i + \theta_m)/2$ and $\phi = (\theta_i - \theta_m)/2$), then which of the following is the resolving power of the instrument? [Note that when θ_m changes by $d\alpha$ then θ changes by $d\alpha/2$]". Change answer **A** to $\mathcal{R}_{\text{grat}} = 2 f_{\text{grat}} \tan^2\theta / W$.

p. 746, IT, part (iv): Change h/f to h/f_{grat}.

Chapter 21: Fresnel Diffraction

p. 748: footnote 1: Change first sentence to: "We shall see that the Fresnel–Kirchhoff formula that we arrive at is not, in some sense, based on a "real" model, as evidenced in part by the phase of each secondary wavelet being $\pi/2$ rad *ahead* of the primary wave."

p. 748: footnote 1: In last sentence change "Fresnel–Kirchhoff principle" to "Fresnel–Kirchhoff formula".

p. 750, line 8: Change to: "These two corrections and a value for b were initially introduced in an ad hoc manner…"

p. 750, footnote 2: Change "…Green's integral theorem…" …to "Green's second identity…".

p. 755, line 7: Add the sentence "When $r' \to \infty$, $S_n \to \pi r_0 \lambda$ and an aperture of radius a contains $N = a^2 / r_0 \lambda$ (the **Fresnel number**) of zones.".

Chapter 22: Holography

p. 797, Qu. 22.1: Change "Eq. (7.13)" to "Eq. (7.14)".

Chapter 23: Optical Properties of Materials

p. 813, line 11: Change to "The **static conductivity**, σ, is defined through Ohm's law applied to the DC case,"

p. 816, line 3: Change the text to read, "…whose value generally determines…".

p. 816, line 19: Change the text to read, "…so they are typically opaque to visible light (and longer wavelengths) and transparent to ultraviolet light (and shorter wavelengths)".

p. 817, Figure 23.3 caption: Change "…with opacity predicted…" to "with opacity and high reflectance predicted…".

p. 817, line 1: Change "…reflective in the visible region…" to "…reflective across the visible region…".

p. 819, Qu. 23.6: Change the text to read, "…dispersion equation far from any resonances:".

p. 819, Qu. 23.7(b): Change the text to read, "Given a number density of atomic dipoles of 10^{28} m^{-3}, what is the…".

Chapter 24: Nonlinear Optics and the Modulation of Light

p. 827, line 2: Change the text to read, "… $P_2 = 0$ and thus $\chi_2 = 0$".

p. 828, line 19: Change the text to read, "…give rise to different values here, with: $k_{2\omega} = 2n_{2\omega}\omega / c$ and $2k_{\omega} = 2n_{\omega}\omega / c$".

p. 831, line 13: Change the two equations to $\omega_s = \omega_2$ and $\omega_p = \omega_1$.

p. 831, line 20: Change the text to read, "…pumped by a highly coherent fixed-wavelength light source…".
p. 845, line 6: Change the text to read, "The acoustic wave (see the left of Figure 24.14)…".
p. 845, line 9: Change the text to read, "…from the regions of higher refractive index change.".
p. 845, line 12: Change "…transmission phase grating (see Section 11.5)" to "…volume phase grating (see Section 11.6)".
p. 845, line 16: Change the text to read, "…then regions of a particular refractive index represent extended planes…".
p. 845, Figure 24.14 caption: Change the text to read, "…"planes" of particular refractive index within the Bragg regime.".

Chapter 25: Laser Technology and Applications

p. 875, line 7: Change the text to read: "…and pumped by a fixed-wavelength pump laser.".
p. 882, Qu. 25.10: Remove "was 25.7".
p. 883, Qu. 25.18: Change "Eq. (4.52)" to "Eq. (4.53)".

Chapter 26: Optics of the Eye

p. 892, Table 26.1; second column from the right: Change "W_v" to "w_v".

p. 892, Table 26.1; Note a: Change "caandela" to "candela".
p. 892, Table 26.1; Note b: Change "Section 1.4" to "Section 1.5".

Appendix C: Bibliography and References

p. 924, penultimate line: "Theme VI" should read "Theme V".

Appendix D: Answers to Selected Questions

p. 928, Ans. 4.9: should read $y(x, t = 0) = 15\cos(2\pi x / \lambda - 0.523)$

p. 929, Ans. 6.2: (b) should read $E_R = 8.19\cos(0.834 - \omega t)$

p. 929, Ans. 6.15: second equation should read $\upsilon_g = c / 1.7$

p. 929, Ans. 6.17: should read $\upsilon_g = c / A = \text{constant}$

p. 933, Ans. 11.3: should read (a) crown: A = 1.505, B = 3665 nm^2, n_d = 1.516; flint: A = 1.686, B = 14140 nm^2, n_d = 1.727 (b) crown: -3.614×10^{-5} nm^{-1}; flint: -1.394×10^{-4} nm^{-1} (c) crown 2780, 2.1 Å; flint: 10730, 0.55 Å.
p. 933, Ans. 11.7: should read $3.89°,\ 4.89°$

p. 934, Ans. 13.7: should read 129.

p. 935, Ans. 14.6: should read (a) $\tilde{\mathbf{E}} = E_0/2\left(\sqrt{3}\hat{\mathbf{y}} + \hat{\mathbf{z}}\right)e^{i(kx-\omega t)}$; (b) $\tilde{\mathbf{E}} = E_0/\sqrt{3}\,(2\hat{\mathbf{z}} - i\hat{\mathbf{x}})e^{i(ky-\omega t)}$; (c) $\tilde{\mathbf{E}} = \hat{\mathbf{z}}\,E_0 e^{i\left(k(x+y)/\sqrt{2}\,-\,\omega t\right)}$

p. 936, Ans. 14.20: (a) and (b) should read "inclination angle ψ".

p. 936, Ans. 15.5: (a) should read "any polarization state possible", (b) should read "same polarization out as in".
p. 936, Ans 15.6: (b) should read "1, 3, 5, or 7 multiples of 0.015 mm".
p. 936, Ans. 15.12: (a) should read $53.06°$.
p. 936, Ans. 15.16: (b) should read 50 deg/mm.
p. 937, Ans. 15.23: (b) should read "2.03% of I_0".

p. 940, Ans. 23.1: Change K_I to ε_I.

p. 940, Ans. 24.8: Change V_{HW} to $V_{\lambda/2}$.

p. 941, Ans. 25.5: should read "1.0×10^{17} W/m^2; larger as the beam widths are different and here the peak intensity is found."
p. 941, Ans. 26.10: (a) A = 0.75947, B = 5.1089, C = –0.05045, D = 0.65063, (b) 12.9 mm in front; 22.3 behind; 1.97 mm behind; 2.43 mm behind.

Figure Attributions

Change "Maurice Franco" to "Maurice Françon" in the following: **p. 288**, Fig 7.18 & **p. 320**, Fig. 8.14 & **p. 372**, Fig 10.0 & **p. 375**, Fig 10.1 & **p. 384**, Fig 10.6 & **p. 393**, Fig 10.12 & **p. 399**, Fig 10.15 & **p. 566**, Fig. 15.22 & **p. 706**, Fig 19.13 & **p. 710**, Fig 19.16 & **p. 748**, Fig 21.1 & **p. 757**, Fig. 21.7 & **p. 771**, Fig 21.14 & **p. 775**, Fig 21.17.

Errata for the Second Printing of *Pedrottis' Introduction to Optics, 4th ed.*

rayfshiell@trentu.ca **Nov 8, 2026**

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Corrections given below are listed by chapter. Important content errors are highlighted in turquoise, with other entries being minor typos or clarifications. Line numbers refer to lines of text omitting equations, headings, figures, and figure captions.

Chapter 2: Ray Optics

p. 45, Box 2.4: Before the "Lens attributes" title add a new title "Refractive surface attributes" with one bullet point below it: "Concave surfaces have negative radii of curvature, convex surfaces have positive radii of curvature".
p. 66, line 16: Change to: "Thus within the image formation equations for refraction, a real object located on the left of a vertex (and a virtual image on the left) adopts a negative distance; a real image on the right (and a virtual object on the right) adopts a positive distance."
p. 69, Figure 2.33 caption: Add at the end "… and further $R_1 > 0$ and $R_2 < 0$".
p. 86, line 15: Change "$F_2, F_2,$ and N_1, respectively" to "$F_2, F_1,$ and N_1, respectively".

Chapter 3: Understanding Optical Instruments

p. 127, Figure 3.15 caption: Change second sentence to read "As shown both eyepieces can be adjusted by a fine screw thread at the eye lens to optimally focus an image for a particular observer."
p. 127, line 7: Change "…which includes correction…" to "…which improves correction…".
p. 128, line 27: Change $M \approx 25/f_{\text{eff}}$ to $M = 25/f_{\text{eff}}$.
p. 128, line 29: Change text to read "…that is, the distance from the eye lens to the exit pupil. Typical eyepieces…".
p. 128, line 31: Change "…while in unmodified form the Ramsden eyepiece has zero eye relief…" to "…while a high power Ramsden eyepiece also has small eye relief…".
p. 130, line 12: Change sentence to read "This is given by Eq. (2.71), and here is negative, giving an inverted image:".
p. 132, line 24: Change text to read "The range of angles over which an optical component can collect or emit light is indicated by its **numerical aperture**, NA. For a microscope objective this is defined as the product of the refractive index of the space in contact with the lens and the sine of the maximum half-angle of rays from an on-axis object point intercepted by the lens:".
p. 133, line 6: Change text to read "…at an angle greater than α_0 would miss the open area of the lens in the microscope."
p. 133, Figure 3.18 caption: Add at the end "The open area of the lens is implied."
p. 133, footnote 16: Change "*f* number" to "f-number"
p. 134, line 7: Change "…throughout a given space." to "…throughout a space with only flat interfaces."
p. 135, footnote 19: Change $y_{\min} = \lambda/(\text{NA} + \text{NA}_{\text{cond}})$ to $y_{\min} = \lambda/\text{NA}$.
p. 136, line 12: Change text to read "…in a vacuum so living cells cannot be imaged."
p. 152, Eq. (3.27): Change equation to:

$$\text{depth of field} = \frac{2dDs_0 f(s_0 - f)}{D^2 f^2 - d^2 s_0^2 + 2d^2 s_0 f - f^2 d^2}$$

p. 154, line 14: Change "…and the form of each lens." to "…and the power of each thin lens."

Chapter 4: Waves

p. 178, line 9: Change the text to read "…from spherical end mirrors with some additional square prism symmetry."
p. 184, line 27: Change "along the +*y*-direction" to "along the +*z*-direction."

Chapter 9: Coherence

p. 356, Figure 9.8: Add a butterfly icon to the caption indicating that an interactive animation exists.

Chapter 10: Fraunhofer Diffraction

p. 391, Figure 10.10 caption: Change to "The separation of two self-luminous point sources that just satisfies Rayleigh's resolution criterion…".

Chapter 11: Prisms, Diffraction Gratings, and Spectrometers

p. 412, line 16: Change the text to read "…region of normal dispersion an approximate empirical relationship…".

Chapter 13: Optical fibers and Communications Technology

p. 474, line 17: Change "…as might be expected from considerations of diffraction…" to "…for distinct parts of the light field to be correctly mapped…".
p. 488, line 6: Change "…spectral window previously employed …" to "…*first telecom* window previously employed…".
p. 494, line 2: Remove both occurrences of the word "material".
p. 494, Figure 13.12 caption: Remove the word "Material" from "Material dispersion…".
p. 494, footnote 19: Change to "Note the *dispersion* introduced in Chapter 6 results in *material dispersion* here which applies to pulses travelling down an optical fiber.".
p. 495, line 12: Insert "material" after the end of the brackets so it reads: "…(as opposed to anomalous) material dispersion…".

Chapter 15: Polarization in Practice

p. 562, line 5: Add to the end of the sentence "…for sodium light."
p. 562, line 7: Change the text to read "…to the sample type of interest."

Chapter 17: Lasers and Laser Operation

p. 643, Qu. 17.37: Change both instances of κ to κ_2.

Chapter 18: Laser Beams and Laser Cavities

p. 647, line 4: Change "…with square prism symmetry." to "…with substantial square prism symmetry."
p. 647, Fig. 18.1 caption: Before the parentheses, add "Clear Hermite-Gaussian modes are seen in (b)."
p. 648, line 5: Change text to "We start by considering the fundamental Gaussian mode, with its cylindrical symmetry, and then generalize this for cavities with substantial square symmetry."

Chapter 21: Fresnel Diffraction

p. 773, line 18: Change second occurrence of $\overrightarrow{E'F}$ to $\overrightarrow{GE}$
p. 773, Eq. (21.47): remove the primes from both $\overrightarrow{G'E}$ and $\overrightarrow{F'G}$
p. 776, equation: Change to $\overrightarrow{E'F}+\overrightarrow{FG}+\overrightarrow{GE}=\overrightarrow{E'E}$, and the immediately-following text to, "where the first and third terms apply to the wire, so Babinet's principle is indeed satisfied."

Chapter 23: Optical Properties of Materials

p. 811, Table 24.4, top line: Change both instances of λ to λ_0.

Chapter 24: Nonlinear Optics and the Modulation of Light

p. 839, line 14: Change the text to read, "…magneto-optic effect, giving rise to a circular birefringence proportional to the…".
p. 840, line 6: Change "Tm" to "Tb".
p. 840, line 21: Change the text to read "…rotation β in the direction of the current generating the magnetic field predicts…".
p. 840, Eq. (24.15): Change equation to:

$$\beta = -\left(\frac{e}{2m}\frac{\lambda_0}{c}\frac{dn}{d\lambda_0}\right)Bd\,.$$

p. 840, line 24: Change the text to read "…and $dn/d\lambda_0$ is the *dispersion* (the change in the refractive index with wavelength)."

p. 840, both equations after Eq. (24.16): add a minus sign on the right hand side of both equations for V.

p. 840, line 27: remove "rotatory" from "…and the rotatory dispersion…".

p. 841, Table 24.4, top line: Change both instances of λ to λ_0.

p. 841, Figure 24.9: In the top right of the figure $\vec{\mathbf{E}}$ should be rotated *counter*clockwise from the vertical dashed line by β.

Chapter 26: Optics of the Eye

p. 894, line 1: Change the text to read "…length 17 mm in the relaxed state (distant vision) and, for young eyes, 14 mm in the tensed state (near vision). For a more precise model a variety of **schematic eyes** are employed. Although parameters such as....".