

ERRATA. Wave Fields in Real Media. First edition.

Page	Correction
iii	Substitute OSG by OGS and Giganta by Gigante.
29	Substitute the factor 1 in equations (1.191)-(1.194) by ρ .
41	Third line from bottom: substitute ρ by ρ' .
43	Substitute 34° by 49° .
62	Caption of Figure 2.3: substitute M by M_U .
63	Caption of Figure 2.4: substitute M by M_U , and low by high and vice versa in second sentence.
63	Equation (2.137): $\exp[-(t - \tau_1) \dots]$
65	Caption of Figure 2.6: substitute M by M_R .
66	Caption of Figure 2.7: substitute M by M_R , and high by low and vice versa in second sentence.
71	Equation (2.176): $\text{Im}(M_l) = \frac{M_R}{L} \left[\frac{\omega(\tau_{\epsilon l} - \tau_{\sigma l})}{1 + \omega^2 \tau_{\sigma l}^2} \right] \approx \frac{M_R}{L} \left[\frac{2\omega \tau_{0l}}{Q_{0l}(1 + \omega^2 \tau_{0l}^2)} \right] = \frac{M_R}{L Q_l}$.
77	Figure 2.15: the dotted and dashed lines correspond to a finite-difference approximation (Carcione, Cavallini, Mainardi and Hanyga, 2002).
89	Equation (3.52): Remove the minus sign.
92	Equation (3.67): Remove the minus sign.
90	Figure 3.2: Interchange ξ_2 with ξ_1 and vice versa.
94	Equation (3.83): $\langle T \rangle = \frac{1}{4} \rho \omega^2 \Phi_0 ^2 \exp(-2\boldsymbol{\alpha} \cdot \mathbf{x}) \sqrt{[\text{Re}(k^2)]^2 + [\text{Im}(k^2)]^2 \sec^2 \gamma}$.
96	Equation (3.98): $\langle \dot{D} \rangle = \frac{1}{2} \omega \Phi_0 ^2 \exp(-2\boldsymbol{\alpha} \cdot \mathbf{x}) \text{Im}(k^2) [-\rho \omega^2 + 2\mu_I \text{Im}(k^2) \tan^2 \gamma]$.
96	Equation (3.99): $\langle D \rangle = \Phi_0 ^2 \exp(-2\boldsymbol{\alpha} \cdot \mathbf{x}) [\rho \omega^2 (\boldsymbol{\kappa} \cdot \boldsymbol{\alpha}) + 4\mu_I \boldsymbol{\kappa} \times \boldsymbol{\alpha} ^2]$.
111	Equation (3.193): $e_l^{(2)} \rightarrow e_{ijl}^{(2)}$
112	Equation (3.201): replace $i\omega$ by $i\pi$
113	Equation (3.202): replace $i\omega$ by $i\pi$
120	Equation (3.264): $\gamma_1 = I_S M_1(-\omega) = \frac{i\omega I_S}{i\omega \eta_1 - p_1}$ and $\gamma_3 = I_P M_3(-\omega) = \frac{i\omega I_P}{i\omega \eta_3 - p_3}$.
130	Equation (4.16): the signs in front of the square root should be interchanged.
132	Equation (4.38): there is a minus sign on the right side.
137	Equation (4.80): multiply the right side by ω .
141	Line 5: substitute l_2 by l_3 .
142	Equation (4.114): substitute ω^2 by ω^3 .
145	Equation (4.129): substitute l_1 by l_3 in the second expression.
149	Equation (4.141): the 33-component should be $e_{13l}^{(\nu)}$.
171	Equation (6.25) ₁ : elastic: $Q_{0\nu} = Q'_{0\nu} = \infty$ ($\tau_{\epsilon\nu} = \tau_{\sigma\nu}$, $\tau'_{\epsilon\nu} = \tau'_{\sigma\nu}$) or $M_\nu = M'_\nu = 1$.
175	Theorem 2: If the transmission medium is elastic and the incidence is non-normal, the attenuation and Umov-Poynting vectors of the transmitted wave are perpendicular, i.e., $ \psi^T - \delta^T = 90^\circ$.

Page	Correction
175	Equation (6.48): include an ω^2 factor on the right-hand-side.
192	5th line from bottom: Replace (6.10) by (4.160).
193	9th line from bottom: Replace s_{3P1} by s_{3S1} .
194	10th line: The velocities v_{pS_R} , v_{pP_T} and v_{pS_T} are obtained from (6.142) by replacing s_3 by $-s_{3S_1}$, s_{3P_2} and s_{3S_2} , respectively.
194	16th line: the attenuations α_{S_R} , α_{P_T} and α_{S_T} are obtained from (6.144) by replacing s_3 by $-s_{3S_1}$, s_{3P_2} and s_{3S_2} , respectively.
209	Equation (6.169): a factor $-\omega$ is missing on the right-hand side.
210	Equation (6.171): the factor $\sqrt{2\rho}$ should be in the numerator.
218	Equation (6.216): the wavenumber is $k = \omega/v_P$.
248	After equation (7.206): $F_i^{(p)} = -\partial\Phi_D/\partial v_i^{(p)}$.
324	Substitute b by q and c by p in equations (8.81) and (8.82).
324	Equation (8.82): substitute $\sin(\pi/N)/dz_{\max}$ by $(g(1) - g(-1))/z_{\max}$.
348	Buchen (1971b): the correct reference should be: 25 , 97-113.
350	Carcione, J. M., 1998b should be 1999a.
369	White (1960): Geophysics, 25 , 613-624.