Aeroacoustics of Low Mach Number Flows: Fundamentals, Analysis and Measurement, by Stewart Glegg and William Devenport, Academic Press, 2017.

List of corrections

Chapter	Page	Correction
2	22	Equation at bottom of page should read $H - H_o = -\partial\phi/\partial t \equiv H'$
	23	Equation 2.5.8 numerator in last term should be μ not ν
	27	Equation 2.6.11 $\mathbf{v}.\mathbf{n}$ should be $\mathbf{v}.\mathbf{n}^{(o)}$
	41	Equation 2.7.29 should be $\zeta = \frac{1}{2}\left(z + \sqrt{z^2 - a^2}\right)$
	44	Inequality in the last sentence, first paragraph should read $R > a/2$
4	75*	Equation 4.1.4 T_{ij} should be $\rho v_i v_j + [(p - p_\infty) - (\rho - \rho_\infty)c_\infty^2]\delta_{ij} - \sigma_{ij}$
	77	Last term on RHS of Equation 4.2.4 should be $w_i w_j$ not $w_j w_j$
	81	Equation 4.3.10 should be $G_o(\boldsymbol{x}, t\|\boldsymbol{y}, \tau) = \frac{\delta(t-\tau-\|\boldsymbol{x}-\boldsymbol{y}\|/c_\infty)}{4\pi\|\boldsymbol{x}-\boldsymbol{y}\|}$
	84	Equation 4.4.9, second term on RHS should read $\left[\frac{\partial T_{ij}}{\partial\tau}\right]_{\tau=\tau^*}\left(\frac{\partial\tau^*}{\partial x_i}\frac{\partial}{\partial x_j}\left(\frac{1}{r}\right) + \frac{\partial}{\partial x_i}\left(\frac{1}{r}\frac{\partial\tau^*}{\partial x_j}\right)\right)$
	85	Equation 4.4.12 should be $I_r \propto \frac{\rho_\infty U^8 V^2}{(4\pi\|\boldsymbol{x}\|)^2 c_\infty^5 L^4}\left(\frac{x_i x_j}{\|\boldsymbol{x}\|^2}\right)^2$
	91	Equation 4.7.6: q on RHS should be a function $\mathbf{y}$ not $\mathbf{x}$, i.e. $q(\mathbf{y}, t)$
	92	Second paragraph: missing superscript (o), $\left\|\boldsymbol{k}^{(o)}\right\| = \omega/c_\infty$ and two lines below "less than" sign should be $\|\boldsymbol{k}\| \leq \omega/c_\infty$
7	147*	The right hand side of equation 7.4.2 should read $y_2\left(1 + \frac{d^2}{4(y_1^2+y_2^2)}\right)$
	147*	The Heaviside step function appearing at the end of the equation following 7.4.2 should be written as $H(b/2 - \|y_3\|)$
8	173	The horizontal axes in Fig. 8.3A and 8.3B should be labelled t and τ, respectively On line 4 $S_{u_1u_1}(0)$ should be 0.0181 m^2/s^2
9	204	Paragraph after eqn. 9.2.9, first instance of "the incremental increase in" should be deleted
9	216	Equations 9.2.31, 32 and 33, C_1 should be replaced with C_2
10	254	Line 23 should begin $\omega\nu/u_\tau^2 = 1$
	256	L' in Fig. 10.34 should be L_{eff}
11	281	Equation 11.4.7 should read $\langle\tilde{a}_m\rangle = \frac{\Delta t}{2\pi} DFT^*(a_n, m)$ RHS of equation 11.4.9 should read $\frac{2\pi}{\Delta t} IDFT(\langle\tilde{a}_m\rangle^*, n)$
	282*	T_o appearing in the axis labels of Fig. 11.3C should be Δt
	283	The factor $1/2\pi$ in line 14 should be $T_o/2\pi$
	285	Equation 11.5.4 is missing and should be inserted as,

Chapter	Page	Correction
		$\tilde{c}(\omega) = \frac{1}{2\pi}\int_{-\infty}^{\infty} a(\tau)\int_{-\infty}^{\infty} b(t')e^{i\omega(t'+\tau)}dt'd\tau = \frac{1}{2\pi}\int_{-\infty}^{\infty} a(\tau)e^{i\omega\tau}d\tau \int_{-\infty}^{\infty} b(t')e^{i\omega t'}dt'$ $= 2\pi\tilde{a}(\omega)\tilde{b}(\omega)$
	290	Equation after first paragraph: integral should be multiplied by $1/T_o$
12	303	Equation 12.1.6 should be $\phi_m = k\left((m-1)\Delta x - \frac{1}{2}\,L\right)\sin\theta_s$
	314*	The definition of $w_m^{(j)}$ in equation 12.2.13 should read $w_m^{(j)} = \frac{e^{-ik\mathbf{x}_\mathrm{m}.\mathbf{y}_\mathrm{j}/r_o}}{M}$
	317*	The definition of $\mathbf{G}$ in equation 12.2.15 should be conjugated, i.e. $\mathbf{G} = \left[\tilde{G}\left(\mathbf{x}^{(m)}\middle\vert\mathbf{y}^{(n)}\right)\right]^*$, as should the expression for $\mathbf{W}$ given in the line before equation 12.2.18, i.e. $\mathbf{W} = \left[w_m^{(j)}\right]^*$
14	354	First term of exponent on RHS of equation 14.1.1 should be multiplied by i
	355	Equation 14.2.1 should appear as $\tilde{p}(\mathbf{x},\omega) \approx -\frac{i\pi\omega x_2 e^{ik_o r_e - ik_o M x_1}}{c_\infty r_e^2}\Delta\tilde{\tilde{p}}(k_1^{(o)}, k_3^{(o)}, \omega)$ where $k_1^{(o)} = k_o\left(\frac{x_1}{r_e} - M\right)$ and $k_3^{(o)} = \frac{k_o x_3 \beta^2}{r_e}$
	362	Equation 14.4.1 should appear as two separate expressions: $\tilde{\tilde{\mathbf{u}}}(\mathbf{k}) = i\mathbf{k}\times\tilde{\tilde{\boldsymbol{\omega}}}(\mathbf{k})/\lvert\mathbf{k}\rvert^2$ where $\tilde{\tilde{\boldsymbol{\omega}}}(\mathbf{k}) = \frac{1}{(2\pi)^3}\int_V \boldsymbol{\omega}(\mathbf{y})e^{-i\mathbf{k}.\mathbf{y}}dV$
15	388	Equation 15.4.16, exponent should be positive Below equation 15.4.17, k_1 and k_3 should have negative signs in the definition of $\boldsymbol{\kappa}$ Two lines after equation 15.4.19 the inequalities should read $\lvert k_1\rvert \ll \lvert k\rvert$ and $\lvert k_3\rvert \ll \lvert k\rvert$, and the end of this sentence should read "indistinguishable from the negative of k_1 and k_3"
	390	The first expression in the line below equation 15.4.24 should be $\kappa_i \approx -k_i$
	392	Just above equation 15.4.30 the equality should read $\boldsymbol{\kappa} = -\mathbf{k}$ The right hand side of equation 15.4.30 should be positive

Corrections without an asterisk on the page number were incorporated into electronic copies of the book distributed by Elsevier after mid 2018.

Superficial corrections

Chapter	Page	Correction
1	5	First sentence of last paragraph should read "…p_{rms} is the square root of the time average…"
2	21	After equation 2.5.1 "and the kinematic viscosity $\nu = \mu/\rho$" should be deleted
	25	WJD suspects that on the second line from bottom "and viscous action that may cause heating" should be deleted, as equation 2.4.8 constitutes part of the thermodynamic definition of the entropy of the gas
	26	"$s = 0$" in the last sentence of the 3rd paragraph needs explanation as the absolute entropy cannot literally be zero.
	31	Second line from bottom "vorticity of" should be replaced with "circulation around"
3	59	Penultimate line of section 3.6: "…along lines of constant $\|\mathbf{x}\|$" should be changed to "…with $\|\mathbf{x}\|$"
4	90	Reference to Eq. (4.4.7) at bottom of page should be Eq. (4.4.10)
5	100	Start of line 4. Reference should be to section 4.3.
	105	Start of second paragraph should read "The surface integral in the last term is zero for any rigid body and so the only contribution comes from the dipole term".
6	116	The second term of equation 6.1.4 and the following expression should be a divergence rather than a gradient. This error also needs to be corrected in the matching terms in equations 6.1.5 and 6.1.7, and 6.1.9, 7.1.1 and 7.1.2. In the last 3 instances the terms involved are in the immediate left and right of the equals sign.
	118	Vector identity for $\nabla(\mathbf{A}.\mathbf{B})$ has misplaced parentheses and should be, $\nabla(\mathbf{A}.\mathbf{B}) = (\mathbf{A}.\nabla)\mathbf{B} + (\mathbf{B}.\nabla)\mathbf{A} + \mathbf{A} \times (\nabla \times \mathbf{B}) + \mathbf{B} \times (\nabla \times \mathbf{A})$
	123	Missing word, should read "where we <u>are</u> using superscript notation"
7	137	See correction for Chapter 6, page 116
	155	The references in the last two paragraphs to Equations 2.7.29 and 2.7.30 should be to 2.7.30 and 2.7.31 respectively
8	163	Last sentence of introductory paragraph is garbled
11	284	The figure reference in line 5 should be to 11.3C
	285	[Fscr] should be read as $\mathcal{F}$
	288	The figure referenced in line 4 should be 11.5B
14	353	Subscript '2' on $\tilde{\tilde{u}}$ is misplaced below where it should be in equations 14.1.8 to 14.1.11
	390	The expression in the first line of the third paragraph should be $k \sim M/L$
15	370	Line in equation 15.2.1 should not extend below the LHS
16	425	In equation 16.4.3 the variable $ni(\tau)$ should appear as $n_i(\tau)$
App. B	515	Last line above Fig. B.1, "it's" should be "its"