

Corrigenda for the textbook: Turbulence in Coastal and Civil Engineering, by B. Mutlu Sumer and David R. Fuhrman

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The following contains a list of known typographical errors for the textbook:

Sumer, B.M. and Fuhrman, D.R. (2020) Turbulence in Coastal and Civil Engineering. World Scientific. <https://doi.org/10.1142/10829>.

Errors known to the authors include:

- On p. 30, Eq. 1.29 is missing the imaginary unit, and should read:

$$c = \frac{\beta}{\alpha} = c_r + ic_i$$

- On p. 61, in the italicized heading at approximately mid-page "... a for ..." should read "... for a ...". The full heading should read: "*5) Stokes' hypothesis, and the constitutive equation for a Newtonian fluid*".
- In the caption of Fig. 3.39 (p. 129) "0.086" should read "0.086 s".
- On p. 156, in the second line of Eq. 3.184, π_1 should be π_2 and A_4 should be A_5 . Also, in the final line of Eq. 3.184, A_4 should be A_n . The full equation should read:

$$\begin{aligned}\pi_1 &= A_1^{x_1} A_2^{y_1} A_3^{z_1} A_4 \\ \pi_2 &= A_1^{x_2} A_2^{y_2} A_3^{z_2} A_5 \\ &\dots \\ \pi_{n-r} &= A_1^{x_{n-r}} A_2^{y_{n-r}} A_3^{z_{n-r}} A_n\end{aligned}$$

- On p. 176, in the numerator of Eq. 4.38, the expression in the first set of parentheses should be t , not τ . Eq. 4.38 should read:

$$R_E(\tau) = \frac{\overline{u'(t)u'(t + \tau)}}{\overline{u'^2}}$$

- On p. 196, in Eq. 4.102 the expression for w should just be:

$$w = \omega_{01}y$$

- On p. 219 the references to `ProgramSpectrum.m` (two instances) should be to `ExampleSpectrum.m` (as indicated on p. 216, top).
- On p. 380, it should read $k_s = 0.84$ mm (rather than $k_s = 0.18$ mm).
- On p. 421, Eq. 6.32 is missing parentheses on the right-most hand side, which should read:

$$\frac{1}{c} \left(\frac{\partial U_0}{\partial t} \delta - \frac{\tau_0}{\rho} \right)$$

- On Fig. 6.27a (p. 453), the y -axis label should read u_∞/U_m (rather than u_∞/U_w).
- On p. 473, in the second term of the left-hand-side of Eq. 6.90, $\boldsymbol{\omega}$ should be $\overline{\boldsymbol{\omega}}$. The left-hand-side of Eq. 6.90 should read:

$$\frac{\partial \overline{\boldsymbol{\omega}}}{\partial t} - \nabla \times (\overline{\mathbf{u}} \times \overline{\boldsymbol{\omega}}) = \dots$$

- On Figs. 7.39 (p. 560) and 7.43 (p. 568) the colorbar limits for ν_t/ν are missing. On both figures the lower (bottom, white) limit is 0 and the upper (top, black) limit is 300.
- On p. 587, in the final term (right-hand-side) of Eq. 7.119 variable z should be y . The term should read:

$$\frac{1}{\rho} \frac{\partial \tau}{\partial y}$$

- On p. 657, three lines above Eq. 9.29, “isotropic” should be “homogeneous”.

In case any other errors are found or suspected, please report them to the book's second author, David R. Fuhrman, at: drf@mek.dtu.dk. The most up-to-date corrigenda file (filename: Corrigenda.pdf) will always be available at the DTU Data Collection:

<https://doi.org/10.11583/DTU.c.4508648>.