

# Errata For Mathematical Methods for Oscillations and Waves

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1. p. 10. In (1.36), the speed  $v_{sc}$  should read  $v_{esc}$  .
2. p. 40 Before (2.32), the set of complex coefficients  $a_j$  should have index from negative infinity to infinity:  $\{a_j\}_{j=-\infty}^{\infty}$ .
3. p. 40 In (2.36) and just below, the exponential should not have a  $-$  sign in it:  $e^{i2\pi(j-k)}$ .
4. p. 42 Above Fig. 2.7, should read: “so for  $p(t)$  odd,  $p(t) \cos(2\pi jt/T)$  is odd.”
5. p. 111 In (4.79), there should be a  $-$  in the exponential on the far right:  $\alpha^2 = -\omega^2 e^{-\alpha\tau}$ .
6. p. 112 In (4.81) the tangent of the Mach angle should be the sine of the Mach angle:  $\tan \theta_m \rightarrow \sin \theta_m$ .
7. p. 155 Just before (6.33), the side length of the box should be  $2\ell$ : “use a box of side length  $2\ell$ , centered at the origin.”
8. p. 156 The first equality in (6.39) is missing an integration symbol for  $dz$  — it should read:
$$\int_S \mathbf{V} \cdot d\mathbf{a} = \int_{-\ell}^{\ell} \int_{-\ell}^{\ell} (-y^2) dy dz = -2\ell \int_{-\ell}^{\ell} y^2 dy = -\frac{4\ell^4}{3}.$$
9. p. 219 Third line from the top of the page — the number of grid points,  $n$ , must be a *multiple* of two, not a “factor” of two: “(that *must* be a multiple of two, as is clear from (8.34)).”