Corrigendum

In Chapter 2, Governing Equations, the correct equation (2.33) should be:

$$F_{V_{cor}} = -\left(f + u\frac{\partial m}{\partial y} - v\frac{\partial m}{\partial x}\right)U + eW\sin\alpha_r - \frac{vW}{r_e}$$

In Chapter 3, Model Discretization, the correct equations (3.12) and (3.26) are:

$$\delta_{\tau}\phi'' + \frac{1}{\mu_d^{t^*}} [m\Omega''^{\tau+\Delta\tau}\phi_{\eta} - \overline{gW''}^{\tau}] = R_{\phi}^{t^*}$$

$$\delta_{\tau}\phi'' + \frac{1}{\mu_d^{t^*}} [m\Omega''^{\tau+\Delta\tau}\delta_{\eta}\phi - \overline{gW''}^{\tau}] = R_{\phi}^{t^*}$$

Also in Chapter 3, page 18, the correct equation for V component of the Coriolis and curvature term is

$$F_{V_{cor}} = -\left(\overline{f}^y + \overline{\overline{u}^x}\delta_y m - \overline{\overline{v}^y}\delta_x \overline{m}^y\right)\overline{U}^{xy} + \overline{e}^y \overline{W}^{y\eta} \overline{\sin\alpha_r}^y - \frac{v\overline{W}^{y\eta}}{r_e}$$

In Chapter 4, Turbulent Mixing and Model Filters, the term D in equation (4.6) has been corrected to:

$$D = \frac{1}{2} \left[D_{11}^2 + D_{22}^2 + D_{33}^2 \right] + \left(\overline{D_{12}}^{xy} \right)^2 + \left(\overline{D_{13}}^{x\eta} \right)^2 + \left(\overline{D_{23}}^{y\eta} \right)^2$$