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Erratum

Volume **34**, Number 1 (1980), in the Note "On the Numerical Generation of Boundary-Fitted Orthogonal Curvilinear Coordinate Systems" by C. D. Mobley and R. J. Stewart, pp. 124–135:

Equation (1) and the accompanying discussion are in error. This error affects only the introductory example and does not change the development beginning with Eq. (3). The correct equation and discussion should be:

$$\frac{\partial f}{\partial n} = \hat{n} \cdot \nabla f = \frac{1}{J}\left[h_{\xi\xi}\frac{\partial f}{\partial \eta} - \frac{h_{\xi\eta}^2}{h_{\xi\xi}}\frac{\partial f}{\partial \xi}\right], \tag{1}$$

where $\hat{n}$ is the outward normal; $h_{\xi\xi}$, $h_{\eta\eta}$, and $h_{\xi\eta}$ are scale factors of the (x, y) to (ξ, η) transformation,

$$h_{\xi\xi} = (x_\xi^2 + y_\xi^2)^{1/2},$$
$$h_{\eta\eta} = (x_\eta^2 + y_\eta^2)^{1/2},$$

and

$$h_{\xi\eta} = (x_\xi x_\eta + y_\xi y_\eta)^{1/2};$$

and $J \equiv x_\xi y_\eta - x_\eta y_\xi = (h_{\xi\xi}^2 h_{\eta\eta}^2 - h_{\xi\eta}^4)^{1/2}$ is the Jacobian of the transformation.