CORRIGENDUM*

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In Hwang and Wang (2004), there is an error in Eq. (11). The correct equation should have been written as

$$A_{\omega t} = [A_{\omega x}{}^{1/a_{\omega x}} R(a_{\omega x} + 1)]^{a_{\omega t}}, \quad \text{and} \quad a_{\omega t} = \frac{a_{\omega x}}{a_{\omega x} + 1}. \tag{11}$$

The figures presented in that paper were computed with the correct equation, and so they are not changed. Note that in the above equation the "(11)" refers back to the original paper. In the discussion that follows, new equation and figure numbers are introduced that apply only to this corrigendum.

The equations presented in Hwang and Wang (2004) can be simplified considerably by replacing the indexing notation system employed there. Expressing

$$e_* = A_{ex} x_*^{a_{ex}} = A x_*^a \quad \text{and} \quad \omega_* = A_{\omega x} x_*^{a_{\omega x}} = B x_*^b, \tag{1}$$

the fetch-duration conversion equation is then

$$t_* = \frac{B}{R(b + 1)} x_*^{b+1}, \quad \text{or} \quad x_* = \left[\frac{R(b + 1)}{B} t_*\right]^{1/(b+1)}. \tag{2}$$

The duration growth of the dimensionless wave energy and peak frequency can be expressed as

$$e_* = A_{et} t_*^{a_{et}} = P t_*^p \quad \text{and} \quad \omega_* = A_{\omega t} t_*^{a_{\omega t}} = Q t_*^q. \tag{3}$$

Using the conversion in Eq. (2), the parameters relating $e_*(t_*)$ and $\omega_*(t_*)$ to $e_*(x_*)$ and $\omega_*(x_*)$ are

$$P = A_{et} = A\left[\frac{R(b + 1)}{B}\right]^{a/(b+1)}, p = a_{et} = \frac{a}{b + 1}, \tag{4}$$

$$Q = A_{\omega t} = [B^{1/b} R(b + 1)]^{b/(b+1)}, \quad \text{and}$$

$$q = a_{\omega t} = \frac{b}{b + 1}. \tag{5}$$

Also, eliminating x_* or t_* in $e_*(x_*|t_*)$ and $\omega_*(x_*|t_*)$ gives

$$e_* = A_{e\omega} \omega_*^{a_{e\omega}} = R\omega_*^r, \text{with} \tag{6}$$

$$R = A_{e\omega} = \left(\frac{A^b}{B^a}\right)^{1/b} \quad \text{and} \quad r = \frac{a}{b}. \tag{7}$$

The local coefficients and local slopes of the functions $\omega_*(x_*)$ and $e_*(x_*)$ based on the second-order power-law functions are shown in Figs. 1a and 1b. The local slope represents the rate of change of $\omega_*(x_*)$, $e_*(x_*)$, or $e_*(\omega_*)$ at different stages of wave development. For younger waves (small x_* or large ω_*), the change is faster, as reflected by the larger magnitude of the local slope. The gradient of the change of local slope is linear with respect to $\ln x_*$ as a result of second-order fitting in $\ln x_*$ space. The local coefficients and local slopes of $\omega_*(x_*)$ and $e_*(x_*)$ can be presented as a function of ω_* through the application of $\omega_*(x_*)$ as shown in Figs. 1c and 1d; the local coefficients and local slopes of $\omega_*(t_*)$ and $e_*(t_*)$ are shown in Figs. 1e and 1f. In a similar way, the local coefficients and local slopes for $e_*(\omega_*)$ are shown in Fig. 2, presented as functions of x_*, t_*, and ω_*. For comparison, the constant values of the first-order power-law representations are also shown ($A_{ex1} = A_1 = 6.19 \times 10^{-7}$, $a_{ex1} = a_1 = 0.811$, $A_{\omega x1} = B_1 = 11.86$, $a_{\omega x1} = b_1 = -0.237$, $A_{et1} = P_1 = 1.27 \times 10^{-8}$, $a_{et1} = p_1 = 1.062$, $A_{\omega t1} = Q = 36.92$, $a_{\omega t1} = q_1 = -0.310$, $A_{e\omega 1} = R_1 = 2.94 \times 10^{-3}$, and $a_{e\omega 1} = r_1 =$

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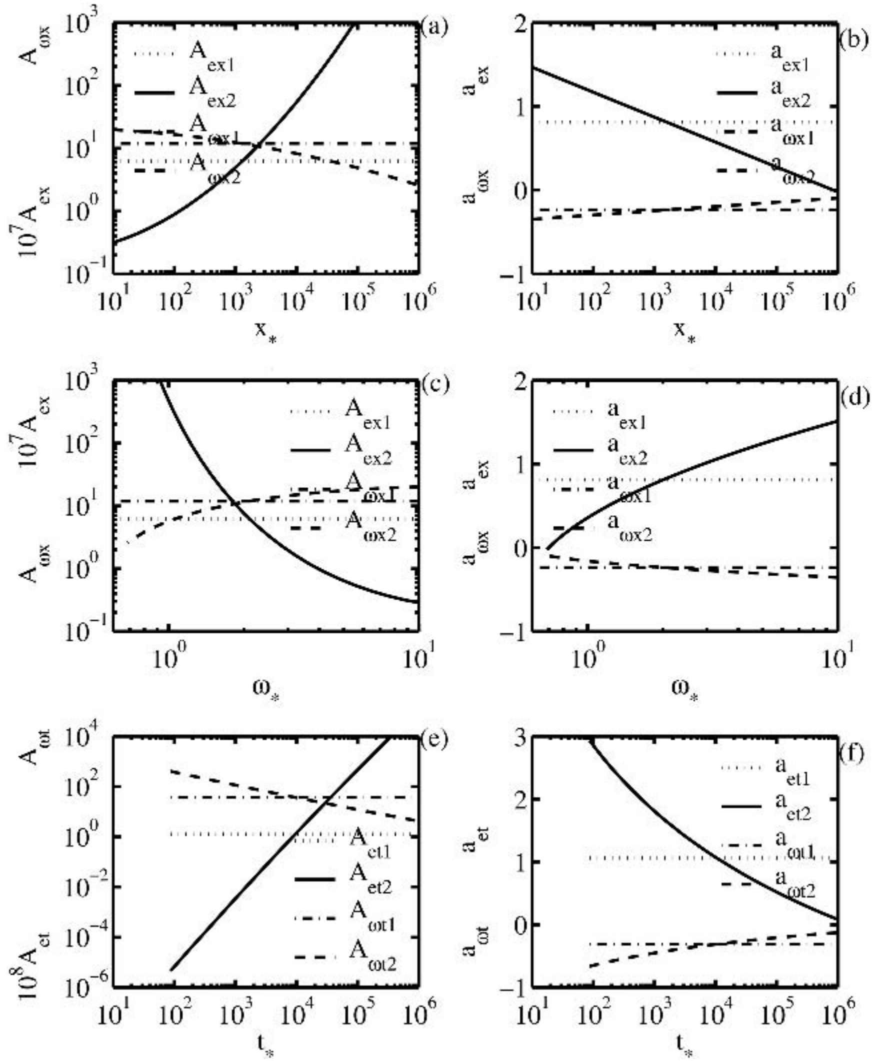

FIG. 1. (a) Coefficients and (b) exponents of the first- and second-order power-law fitting of $\omega_*(x_*)$ and $e_*(x_*)$. (c), (d) Same as (a) and (b) but presented in terms of ω_*. (e) Coefficients and (f) exponents of the first- and second-order power law of $\omega_*(t_*)$ and $e_*(t_*)$ computed from the fetch growth functions.

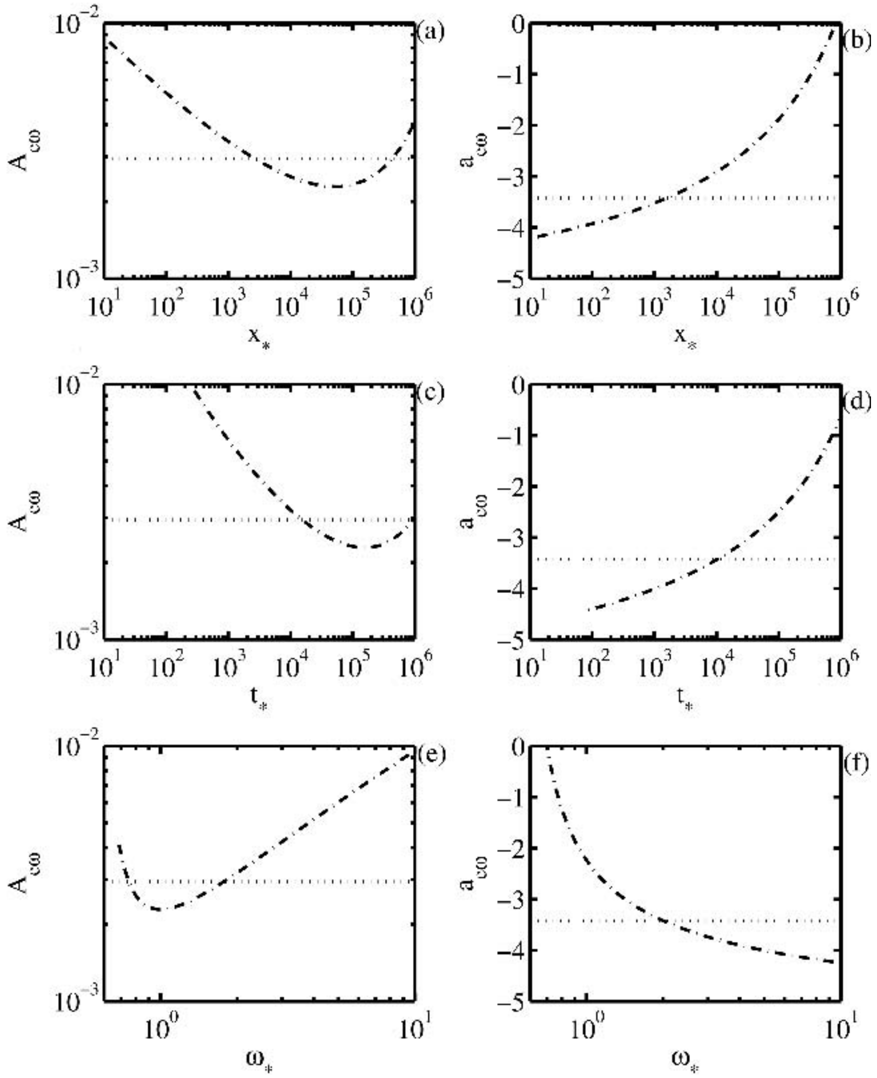

FIG. 2. (left) Coefficients and (right) exponents of the computed first- (dotted curves) and second-order (dotted–dashed curves) power-law functions $e_*(\omega_*)$ computed from the fetch growth functions, expressed in terms of (a), (b) x_*; (c), (d) t_*; and (e), (f) ω_*.

−3.42). As illustrated in these computations, the coefficient and slope of data fitting for wave-growth data can vary considerably depending on the range of the wind-wave growth conditions covered by the experiments.

REFERENCES

Hwang, P. A., and D. W. Wang, 2004: Field measurements of duration-limited growth of wind-generated ocean surface waves at young stage of development. *J. Phys. Oceanogr.,* **34,** 2316–2326.