Dispersive water-wave equations: a paradigm of the Painlevé conjecture

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CORRIGENDUM

Dispersive water-wave equations: a paradigm of the Painlevé conjecture†
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These revisions pertain to the above recent Letter to the Editor. These equations are only a portion of the equations in the letter requiring revision.

$$\begin{aligned} 2f' &= -(1/z^2)(2g-g^2)+(2/z)(g'-gg')-g'-4g'' \\ f+zf' &= 2f'+4zf''+fg/z-2(gf)' \end{aligned} \tag{2'}$$

$$16z^3g''' = g(z^2+12)-3g^3-zg^2+6zg^2g'+6z^2gg'+g'(-12z+z^3-2Az^2)+Azg-Az^2 \tag{3}$$

$$16z^3g''' \text{ and } 6zg'g^2 \text{ matches with } p=-1,\ldots \tag{4}$$

$$z^3=(z-z_0+z_0)^3=(z-z_0)^3+3z_0^2(z-z_0)+3z_0(z-z_0)^2+z_0^3.$$

With $A=0$ equation (3) can be written as

$$\begin{aligned} 16[(z-z_0)^3+3(z-z_0)^2z_0+3(z-z_0)z_0^2+z_0^3]g''' \\ = g[(z-z_0)^2+2z_0(z-z_0)+z_0^2+12]-3g^3 \\ +g'[(z-z_0)^3+3z_0(z-z_0)^2+3z_0^2(z-z_0)+z_0^3-12(z-z_0)-12z_0] \\ -[(z-z_0)+z_0]g^2+6gg'[(z-z_0)^2+2z_0(z-z_0)+z_0^2] \\ +6g'g^2[(z-z_0)+z_0]. \end{aligned} \tag{5}$$

† These corrections were submitted by M Coffey, Department of Physics, Iowa State University, Ames, IA 50011, USA, and are published with the authors' permission.