ERRATUM

A nonlocal connection between certain linear and nonlinear ordinary differential equations/oscillators

To cite this article: V K Chandrasekar et al 2006 J. Phys. A: Math. Gen. 39 10945

View the article online for updates and enhancements.

Recent citations

- A class of solvable coupled nonlinear oscillators with amplitude independent frequencies
  V.K. Chandrasekar et al

- Nonlocal symmetries of Riccati and Abel chains and their similarity reductions
  M. S. Bruzon et al

- Nonlocal symmetries of a class of scalar and coupled nonlinear ordinary differential equations of any order
  R Gladwin Pradeep et al
Erratum

A nonlocal connection between certain linear and nonlinear ordinary differential equations/oscillators
V K Chandrasekar, M Senthilvelan, Anjan Kundu and M Lakshmanan

The third derivatives in this paper were inadvertently replaced with second derivatives during processing.

The following six equations are corrected:

\[ \ddot{U} + c_1 \dddot{U} + c_2 \dot{U} + c_3 U = 0 \quad (35) \]

\[ \ddot{x} + \left[ 3(n-1) \frac{\ddot{x}}{x} + d_1(t, x) \right] \dddot{x} + (n-1)(n-2) \frac{\dddot{x}^3}{x^2} + d_2(t, x)x^2 + d_3(t, x) \frac{\dddot{x}^3}{x^2} + d_4(t)x^2 + d_5(t)x^3 + d_6(t)x = 0 \quad (36) \]

\[ \dddot{x} + 4k \dddot{x} + 3k \dddot{x}^2 + 6k^2 \dddot{x} + k^3 \dddot{x}^3 = 0 \quad (43) \]

\[ \dddot{x} + (c_1 + 4k)x \dddot{x} + 3k \dddot{x}^2 + 3k(c_1 + 2k)x \dddot{x} + (c_1 + k)xk^2 \dddot{x}^3 = 0 \quad (46) \]

\[ \dddot{x} + 4k \dddot{x} + 3k \dddot{x}^2 + 6k^2 \dddot{x} + k^3 \dddot{x}^3 + c_3 x = 0 \quad (49) \]

\[ \dddot{x} + (c_1 + 4k)x \dddot{x} + 3k \dddot{x}^2 + (c_2 + 3k c_1 + 6k^2 x) \dddot{x} + (c_1 + k)xk^2 \dddot{x}^3 + c_2 k x^2 + c_3 x = 0 \quad (52) \]

In section 3.2 the first line should read ‘In this case, the linear equation (35) becomes \( \dddot{U} + c_1 \dddot{U} = 0 \).’

In section 3.3 the first sentence should read ‘In this case, the linear ODE (35) assumes the form \( \dddot{U} + c_3 \dddot{U} = 0 \) and the nonlocal transformation (12) transforms this equation, \( \dddot{U} + c_3 \dddot{U} = 0 \).’