Tu, Shih-Tong; Lin, Shy-Der; Huang, Yu-Tan; Srivastava, H. M.

Solutions of a certain class of fractional differintegral equations. (English) Zbl 0979.34002


Summary: Recently, several authors demonstrated the usefulness of fractional calculus in obtaining particular solutions to a number of such familiar second-order differential equations as those associated with Gauss, Legendre, Jacobi, Chebyshev, Coulomb, Whittaker, Euler, Hermite, and Weber equations.

The main object of this paper is to show how some of the latest contributions on the subject by S.-T. Tu, S.-D. Lin and Y.-T. Huang [J. Fractional Calc. 16, 111-122 (1999; Zbl 0959.34010)], involving the associated Legendre and Hermite equations, can be presented in a unified manner by suitable appealing to a general theorem on particular solutions to a certain class of fractional differintegral equations.

MSC:

34A25 Analytical theory of ordinary differential equations: series, transformations, transforms, operational calculus, etc.
26A33 Fractional derivatives and integrals

Keywords:
solutions; fractional differintegral equations

Full Text: DOI

References:


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