# Infinitely Many Symmetries of Konopelchenko-Dubrovsky Equation

LI Zhi-Fang[1] and RUAN Hang-Yu[1,2,3]

[1] Department of Physics, Ningbo University, Ningbo 315211, China
[2] Nonlinear Science Center and Physics Department of Ningbo University, Ningbo 315211, China
[3] State Key Laboratory of Scientific and Engineering Computing, Institute of Computational Mathematics and Scientific Engineering Computing, Academy of Mathematics and System Sciences, the Chinese Academy of Sciences, P.O. Box 2719, Beijing 100080, China

Abstract: A set of generalized symmetries with arbitrary functions of t for the Konopelchenko-Dubrovsky (KD) equation in 2+1 space dimensions is given by using a direct method called formal function series method presented by Lou. These symmetries constitute an infinite-dimensional generalized $w_\infty$ algebra.

[Full text: PDF]

Close