

## Article Abstract

<b>Title:</b>	<b>Waves, conservation laws and symmetries of a third-order nonlinear evolution equation</b>
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<b>Abstract:</b>	In this paper a less studied nonlinear partial differential equation of the third-order is under consideration. Important properties concerning advanced character such like conservation laws and the equation of continuity are given. Characteristic wave properties such like dispersion relations and both the group and phase velocities are derived explicitly. In addition, we discuss the non-classical case relating to potential symmetries for the first time. Further, for practical applications in several domains of sciences we discuss in detail approximate symmetries. Finally, as a further new contribution we deduce new generalized symmetries of lower order. Some important notes relating to future intensions are given.
<b>Keywords:</b>	Nonlinear partial differential equations, evolution equations, symmetries.