

Computer Algebra and Solutions to the Karamoto-Sivashinsky Equation

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(Received: 2004-4-26; Revised:)

Abstract: The method of Riccati equation is extended for constructing travelling wave solutions of nonlinear partial differential equations. It is applied to solve the Karamoto-Sivashinsky equation and then its more new explicit solutions have been obtained. From the results given in this paper, one can see the computer algebra plays an important role in this procedure.

PACS: 03.40.Kf, 02.30.Jr, 04.20.Jb

Key words: Karamoto-Sivashinsky equation, computer algebra, exact solution

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