### KINGDOM OF SAUDI ARABIA

Ministry of Higher Education

# KING ABDULAZIZ UNIVERSITY

**Faculty of Science** 



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# A modified tanh-coth method for solving the general Burgers-Fisher and the Kuramoto-Sivashinsky equations

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## Abstract

In this work we use a modified tanh-coth method to solve the general Burgers-Fisher and the Kuramoto-Sivashinsky equations. The main idea is to take full advantage of the Riccati equation that the tanh-function satisfies. New multiple travelling wave solutions are obtained for the general Burgers-Fisher and the Kuramoto-Sivashinsky equations. © 2008 Elsevier B.V. All rights reserved.

## **Author Keywords**

General Burgers-Fisher equation; Kuramoto-Sivashinsky equation; Riccati equation; The extended tanh method; The tanh-coth method; Travelling wave solutions

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