

New Soliton Solutions of Chaffee-Infante Equations Using the Exp-Function Method

Rathinasamy Sakthivel and Changbum Chun

Department of Mathematics, Sungkyunkwan University, Suwon 440-746, Republic of Korea

Reprint requests to C. C.; Fax: 82-31-290-7033; E-mail: cbchun@skku.edu

Z. Naturforsch. **65a**, 197 – 202 (2010); received November 12, 2008 / revised July 28, 2009

In this paper, the exp-function method is applied by using symbolic computation to construct a variety of new generalized solitary solutions for the Chaffee-Infante equation with distinct physical structures. The results reveal that the exp-function method is suited for finding travelling wave solutions of nonlinear partial differential equations arising in mathematical physics.

Key words: Chaffee-Infante Equations; Solitary Solutions; Travelling Wave Solutions;
Exp-Function Method.

PACS numbers: 02.30.Jr; 04.20.Jb