Accepted Manuscript

Title: CHIRP-FREE BRIGHT OPTICAL SOLITONS FOR PERTURBED GERDJIKOV-IVANOV EQUATION BY SEMI-INVERSE VARIATIONAL PRINCIPLE

Author: Anjan Biswas Rubayyi T. Alqahtani

Please cite this article as: Anjan Biswas, Rubayyi T. Alqahtani, CHIRP-FREE BRIGHT OPTICAL SOLITONS FOR PERTURBED GERDJIKOV-IVANOV EQUATION BY SEMI-INVERSE VARIATIONAL PRINCIPLE, <![CDATA[Optik - International Journal for Light and Electron Optics]]> (2017), http://dx.doi.org/10.1016/j.ijleo.2017.08.019

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

CHIRP-FREE BRIGHT OPTICAL SOLITONS FOR PERTURBED GERDJIKOV-IVANOV EQUATION BY SEMI-INVERSE VARIATIONAL PRINCIPLE

Anjan Biswas [1,2] & Rubayyi T. Alqahtani [2]

[1] Department of Mathematics and Statistics,
Tshwane University of Technology, Pretoria-0008, South Africa

[2] Department of Mathematics and Statistics, College of Science,
Al-Imam Mohammad Ibn Saud Islamic University,
Riyadh-13318, Saudi Arabia

Abstract

Two forms of bright soliton solutions are obtained by the aid of semi-inverse variational principle for the perturbed Gerdjikov-Ivanov equation. The integrability criteria for this model are also presented.

Key Words: solitons; semi-inverse variation; hypergeometric functions.