

Zedan, H.A.^{a b}, Al-Tuwairqi, S.M.^c

Painlevé analysis of generalized zakharov equations

(2010) *Pacific Journal of Mathematics*, 247 (2), pp. 497-510.

^a Mathematics Department, Kafr El-Sheikh University, Kafr El-Sheikh, Egypt

^b Mathematics Department, King Abdul Aziz University, Po Box 80203, Jeddah 21589, Saudi Arabia

^c Mathematics Department, King Abdulaziz University, Jeddah 21589, Saudi Arabia

Abstract

We consider the invariance and integrability properties of the generalized Zakharov equations and obtain an exact invariant solution. We derive the Painlevé property of these equations and obtain some exact solutions using the truncated Painlevé expansion. © 2010 by Pacific Journal of Mathematics.

Author Keywords

Generalized Zakharov equations; Lie symmetries; Painlevé expansion

Document Type: Article