

Optical soliton solutions for the generalized Kudryashov's equation of propagation pulse in optical fiber with power nonlinearities by three integration algorithms

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May 23, 2020

Abstract

In this paper, we employ three integration algorithms namely, the well known Kudryashov method, the new Kudryashov method and the unified Riccati equation expansion method to extract optical soliton solutions for the generalized Kudryashov's equation with power nonlinearities. Straddled soliton, bright solitons, dark solitons and singular solitons have been found

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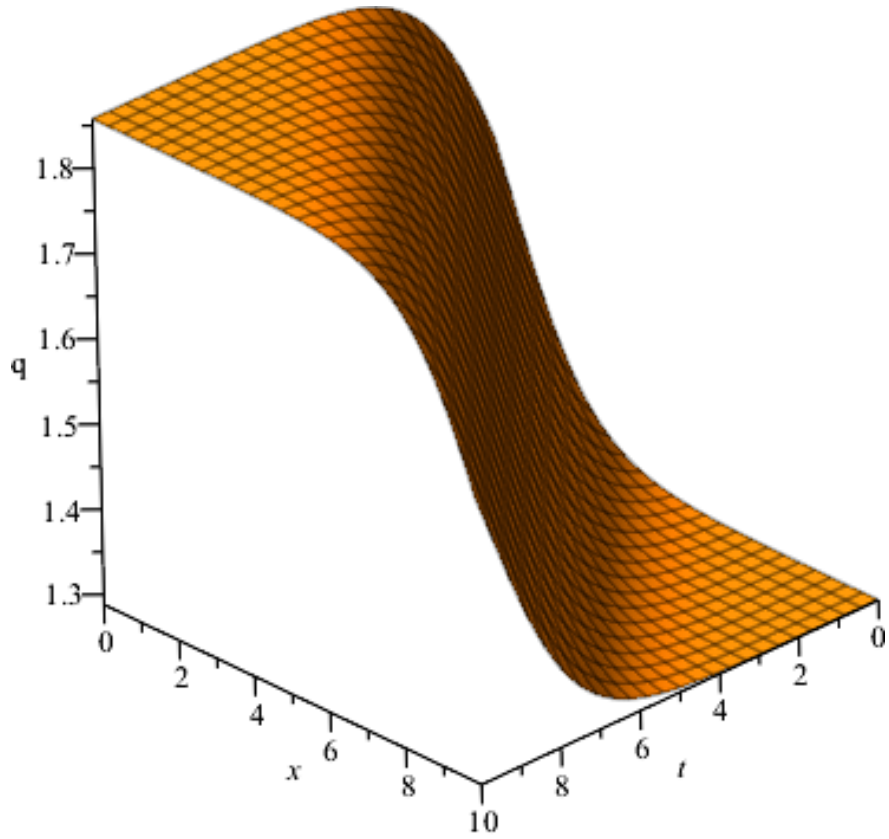


Figure 1

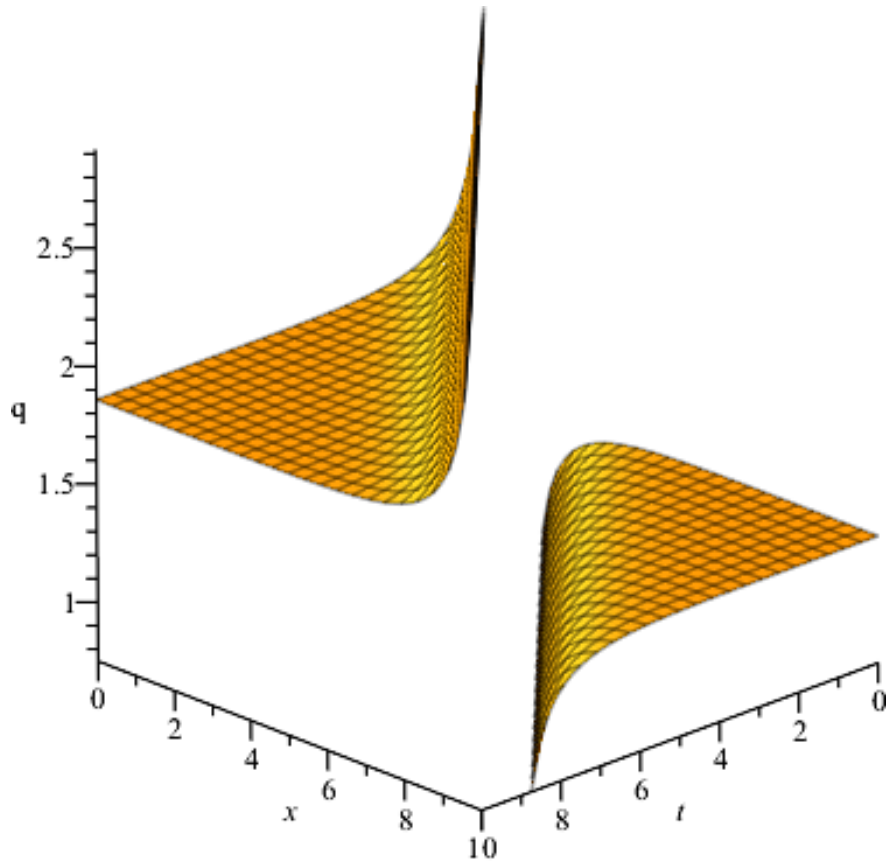


Figure 2

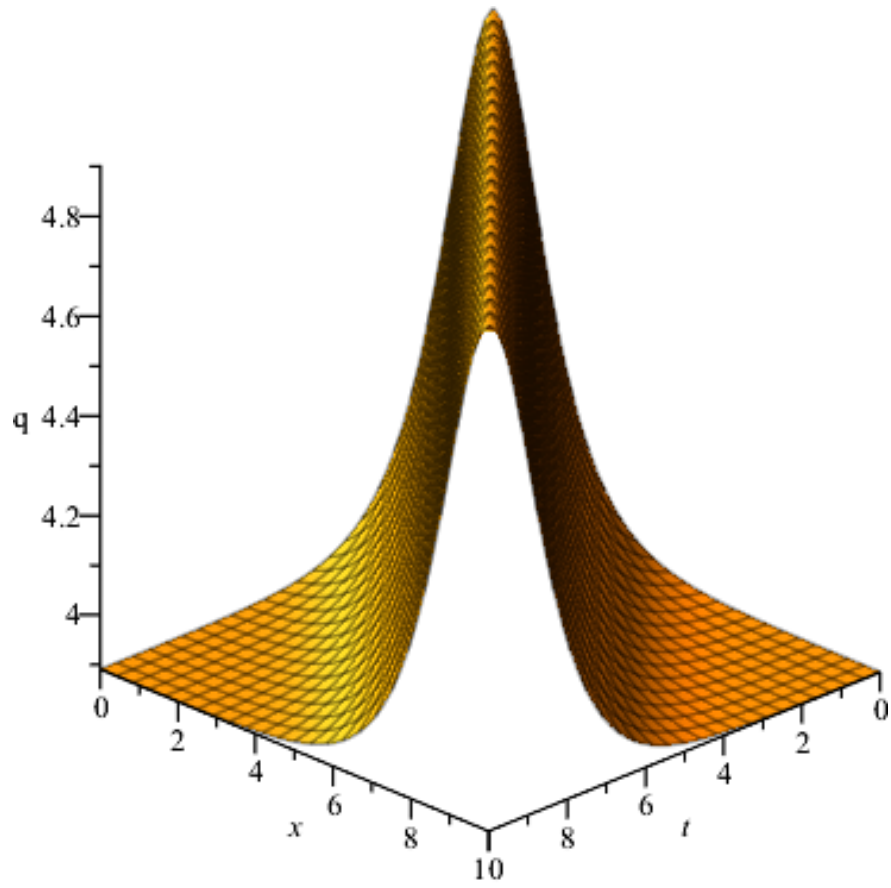


Figure 3

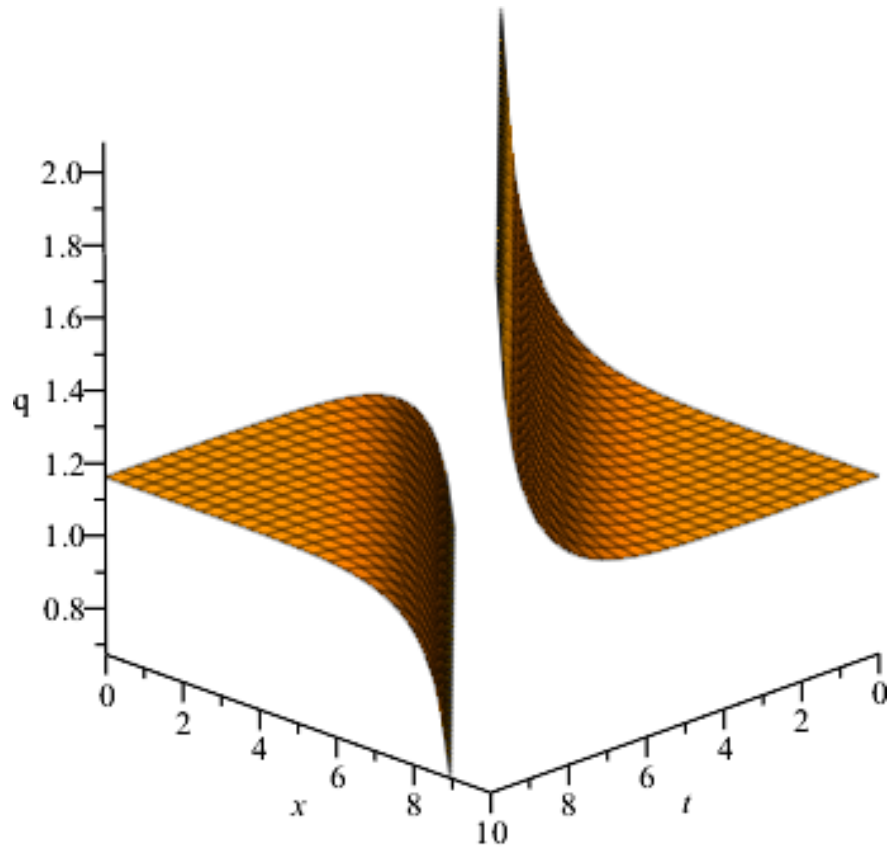


Figure 4

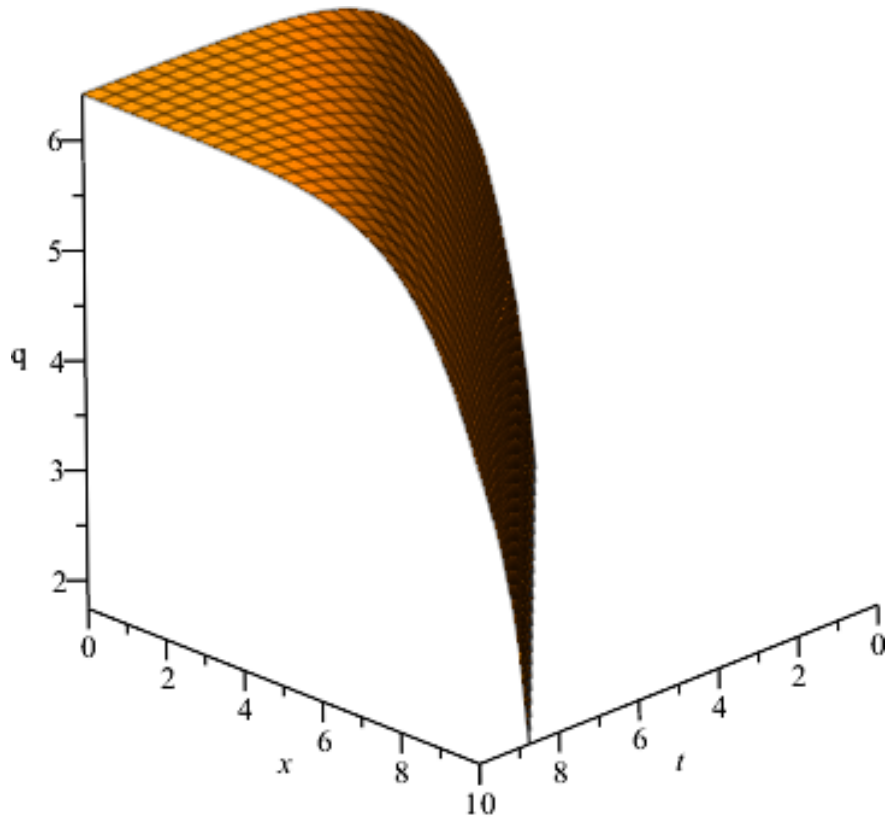


Figure 5

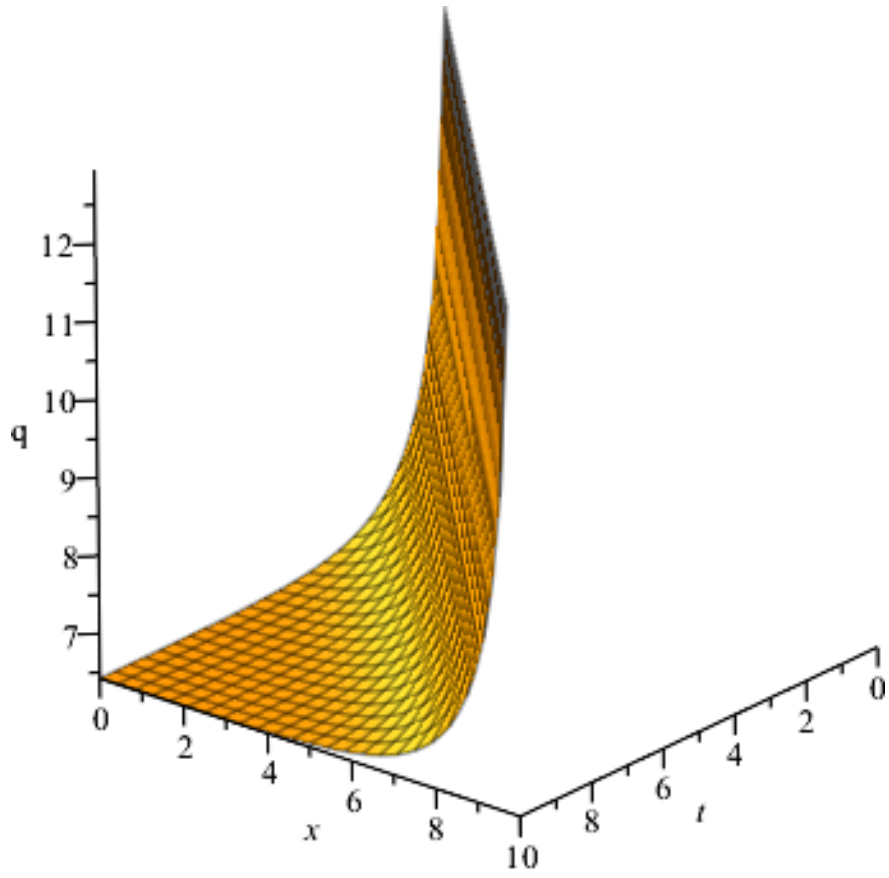


Figure 6