Accepted Manuscript

Lie symmetry analysis, conservation laws and analytic solutions of the time fractional Kolmogorov-Petrovskii-Piskunov equation

Chun-Yan Qin, Shou-Fu Tian, Xiu-Bin Wang, Li Zou, Tian-Tian Zhang

PII: S0577-9073(17)31536-8 DOI: 10.1016/j.cjph.2018.05.002

Reference: CJPH 524

To appear in: Chinese Journal of Physics

Received date: 25 November 2017 Revised date: 17 April 2018 Accepted date: 2 May 2018



Please cite this article as: Chun-Yan Qin, Shou-Fu Tian, Xiu-Bin Wang, Li Zou, Tian-Tian Zhang, Lie symmetry analysis, conservation laws and analytic solutions of the time fractional Kolmogorov-Petrovskii-Piskunov equation, *Chinese Journal of Physics* (2018), doi: 10.1016/j.cjph.2018.05.002

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.

ACCEPTED MANUSCRIPT

Highlights

- We study the invariance properties of a fractional KPP (FKPP) equation
- We derive its vector fields and symmetry reductions via Lie symmetry analysis method
- An effective method is proposed to derive its analytic solutions
- Its conservation laws are well constructed with a detailed analysis
- The dynamic behaviors of these waves are discussed with graphic analysis

Download English Version:

https://daneshyari.com/en/article/9953794

Download Persian Version:

https://daneshyari.com/article/9953794

<u>Daneshyari.com</u>