

Exact Complexiton Solutions of the (2+1)-Dimensional Burgers Equation

Yong Chen^{a,c} and Qi Wang^{b,c}

^a Nonlinear Science Center, Ningbo University, Ningbo 315211, China

^b Department of Applied Mathematics, Dalian University of Technology, Dalian 116024, China

^c M. M. Key Lab, Chinese Academy of Sciences, Beijing 100080, China

Reprint requests to Y. C.; E-mail: chenyon@dlut.edu.cn

Z. Naturforsch. **60a**, 673 – 680 (2005); received June 27, 2005

Based on two different Riccati equations with different parameters, many new types of complexiton solutions to the (2+1)-dimensional Burgers equation are investigated. Such complexiton solutions obtained possess various combinations of trigonometric periodic and hyperbolic function solutions, various combinations of trigonometric periodic and rational function solutions, various combinations of hyperbolic and rational function solutions. – PACS numbers: 02.30.Ik, 05.45.Yv

Key words: Multiple Riccati Equations Rational Expansion Method; Complexiton Solutions; (2+1)-Dimensional Burgers Equation.