New Variable Separation Solutions of the (2+1)-Dimensional Generalized Broer-Kaup System

Jun-Lang Chen and Chao-Qing Dai

School of Sciences, Zhejiang Forestry University, Lin'an 311300, P.R. China

Reprint requests to J.-L. C.; E-mail: Chenjunlang7955@yahoo.com.cn

Z. Naturforsch. **62a**, 677 – 684 (2007); received June 20, 2007

Using symbolic and algebra computation, the extended tanh-function method (ETM) based on the mapping method is further extended. New variable separation solutions of the (2+1)-dimensional generalized Broer-Kaup (GBK) system are derived. From the periodic wave solution and by selecting appropriate functions, the evolutional behaviours of dromions in the background of Jacobian elliptic wave and their interaction behaviours are investigated.

Key words: Generalized Broer-Kaup (GBK) System; Combined Wave Solutions. *PACS numbers*: 02.30.Jr. 02.30.Jk