Folded Localized Excitations and Chaotic Patterns in a (2+1)-Dimensional Soliton System

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Starting from an improved mapping approach and a linear variable separation approach, new families of variable separation solutions (including solitary wave solutions, periodic wave solutions and rational function solutions) with arbitrary functions for the (2+1)-dimensional breaking soliton system are derived. Based on the derived solitary wave solution, we obtain some special folded localized excitations and chaotic patterns.