Nonpropagating Solitary Waves in (2+1)-Dimensional Nonlinear Systems

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Abstract: By means of extended homogeneous balance method and variable separation approach, quite a general variable separation solution of the (2+1)-dimensional Broer-Kaup-Kupershmidt equation is derived. From the variable separation solution and by selecting appropriate functions, a new class of (2+1)-dimensional nonpropagating solitary waves are found. The novel features exhibited by these new structures are first revealed.

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