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Multi-linear Variable Separation Approach to Solve a (2+1)-Dimensional Generalization of Nonlinear Schrödinger System

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Abstract: By using a Bäcklund transformation and the multi-linear variable separation approach, we find a new general solution of a (2+1)-dimensional generalization of the nonlinear Schrödinger system. The new "universal" formula is defined, and then, rich coherent structures can be found by selecting corresponding functions appropriately.

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