Solitons with Periodic Behavior in Korteweg-de Vries Type Models Related to Schrödinger System

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Abstract: The linear variable separation approach is successfully extended to (1+1)-dimensional Korteweg-de Vries (KdV) type models related to Schrödinger system. Some significant types of solitons such as compacton, peakon, and loop solutions with periodic behavior are simultaneously derived from the (1+1)-dimensional soliton system by entrancing appropriate piecewise smooth functions and multivalued functions.

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