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Oscillating Solitons for (2+1)-Dimensional Nonlinear Models

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Abstract: Using extended homogeneous balance method and variable separation hypothesis, we found new variable separation solutions with three arbitrary functions of the (2+1)-dimensional dispersive long-wave equations. Based on derived solutions, we revealed abundant oscillating solitons such as dromion, multi-dromion, solitoff, solitary waves, and so on, by selecting appropriate functions.

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Key words: oscillating soliton, (2+1)-dimensional system, extended homogeneous balance method

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