Dromion Interactions of a (2+1)-Dimensional sine-Gordon Equation

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Starting from two line solitons, the solution of an integrable (2+1)-dimensional sine-Gordon equation in bilinear form yields a dromion solution that is localized in all directions for a suitable potential. The interaction between two dromions is studied in detail through the method of figure analysis. For different selections of parameters, the interactions between two dromions may be elastic, not completely elastic, or completely inelastic.