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Título: The Sine-Gordon Equation In The Semiclassical Limit: Dynamics Of Fluxon Condensa

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The authors study the Cauchy problem for the sine-Gordon equation in the semiclassical limit with pure-impulse initial data of sufficient strength to generate both high-frequency rotational motion near the peak of the impulse profile and also high-frequency librational motion in the tails. They show that for small times independent of the semiclassical scaling parameter, both types of motion are accurately described by explicit formulae involving elliptic functions. These formulae demonstrate consistency with predictions of Whitham's formal modulation theory in both the hyperbolic (modulationally stable) and elliptic (modulationally unstable) cases.

Table of Contents

Introduction
Formulation of the inverse problem for fluxon condensates
Elementary transformations of J(w) |Construction of g(w) |Use of g(w) |Appendix A. Proofs of propositions concerning initial data
Appendix B. Details of the outer parametrix in cases L and R |Bibliography