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论文

mKdV-SineGordon方程的多孤子解

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上海大学数学系 上海 200436

摘要:

该文首先给出了mKdV-SineGordon方程的双线性形式和双线性Backlund变换,然后利用Hirota方法、Backlund变换方法和Wronskian技巧三种不同的方法分别得到mKdV-SineGordon方程的孤子解,最后验证了这三种解的一致性。

关键词: 孤子解; Hirota方法; Backlund变换 Wronski行列式 mKdV-SineGordon方程

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35Q53; 37K40

Multi soliton Solutions of the mKdV-SineGordon Equation

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Abstract:

The bilinear equation and Backlund transformation for the mKdV-SineGordon equation are given. The multi soliton solutions are obtained through Hirota's method, bilinear Backlund transformation and Wronskian technique. The uniformity of these solutions are shown.

Keywords: Soliton solution Hirota's method Backlund transform; Wronskian mKdV-SineGordon equation

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► 孤子解; Hirota方法; Backlund
变换

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