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一个高维loop代数及其应用

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摘要　　本文构造了一个7维loop代数, 由此获得两个已知的Liouville可积族.
利用屠格式和可积耦合定义得到了相应的四个扩展 可积模型. 另外,
利用马格式求得了上面已知可积系之一的非等谱流.

关键词　　loop代数　可积模型　非等谱流

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A New High Dimensional Loop Algebra and Its Applications

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Abstract A new loop algebra with 7 dimensions is constructed, which is devoted to two known Liouville integrable hierarchies. From which, the resulting four expanded integrable models are obtained by making use of Tu scheme and the definition of integrable couplings. In addition, the nonisospectral flows of one of the above known hierarchies are given by use of Ma scheme.

Key words loop algebra   integrable model   nonisospectral flow

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