

Quasideterminant solutions of the generalized Heisenberg magnet model

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In this paper we present Darboux transformation for the generalized Heisenberg magnet (GHM) model based on general linear Lie group $GL(n)$ and construct multi-soliton solutions in terms of quasideterminants. Further we relate the quasideterminant multi-soliton solutions obtained by the means of Darboux transformation with those of obtained by dressing method. We also discuss the model based on the Lie group $SU(n)$ and obtain explicit soliton solutions of the model based on $SU(2)$.

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