



New soliton generating transformations in the bosonic sector of heterotic string effective theory

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In the author's paper (Phys.Rev. D80, 041901(R) (2009)), the integrable structure of the symmetry reduced bosonic dynamics in the low energy heterotic string effective theory was presented. In that paper, for a complete system of massless bosonic fields which include metric, dilaton field, antisymmetric tensor and any number of Abelian vector gauge fields, considered in the space-time of D dimension with $D-2$ commuting isometries, the spectral problem equivalent to the symmetry reduced dynamical equations was constructed. However, the soliton generating transformations were described in that paper only for the case in which all vector gauge fields vanish. In this paper, we recall the integrability structure of these equations and describe some new type of soliton generating transformations in which the vector gauge fields can also enter the background (seed) solution as well as these can be generated even on vacuum background by an appropriate choice of soliton parameters.

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