

Garbaczewski, Piotr

On quantum solitons and their classical relatives: Bethe Ansatz states in soliton sectors of the sine-Gordon system. (English) [Zbl 0491.35074](#)

Ann. Phys. 139, 293-313 (1982).

For a scan of this review see the [web version](#).

MSC:

- 35Q99 Partial differential equations of mathematical physics and other areas of application
- 81T08 Constructive quantum field theory
- 81Q05 Closed and approximate solutions to the Schrödinger, Dirac, Klein-Gordon and other equations of quantum mechanics

Keywords:

soliton fields; CCR algebra representations; quantum soliton; classical field equations; natural generator of time translations; sine-Gordon system; Bethe Ansatz states; ice model Hamiltonian

Full Text: [DOI](#)

References:

- [1] Orfanidis, S., *Phys. rev. D.*, 14, 472, (1976)
- [2] Hirota, R., *J. phys. soc. Japan*, 33, 1453, (1972)
- [3] Caudrey, P.J.; Eilbeck, J.C.; Gibbon, J.D., *Nuovo cimento*, 25B, 497, (1975)
- [4] Kodama, Y.; Wadati, M., *Progr. theoret. phys.*, 56, 1940, (1976)
- [5] Oberlechner, G.; Umezawa, M.; Zenses, Ch., *Lett. nuovo cimento*, 23, 691, (1978)
- [6] Garbaczewski, P., *J. math. phys.*, 22, 1272, (1981)
- [7] Matsumoto, H.; Oberlechner, G.; Umezawa, M.; Umezawa, H., *J. math. phys.*, 20, 2088, (1979)
- [8] Matsumoto, H.; Semenoff, G.; Umezawa, H.; Umezawa, M., *J. math. phys.*, 21, 1761, (1980)
- [9] Matsumoto, H.; Papastamatiou, N.J.; Umezawa, H.; Umezawa, M., *Phys. rev. D*, 23, 1339, (1981)
- [10] Taylor, J.G., *Ann. physics*, 115, 153, (1978)
- [11] Kibble, T.W.B., *J. math. phys.*, 9, 315, (1968)
- [12] Cahill, K., *Phys. lett.*, 53B, 174, (1974)
- [13] Ishikawa, K., *Progr. theoret. phys.*, 55, 588, (1976)
- [14] Aoyama, S.; Kodama, Y., *Progr. theoret. phys.*, 56, 1970, (1976)
- [15] Mercaldo, L.; Rabuffo, I.; Vitiello, G., *Nucl. phys. B*, 188, 193, (1981)
- [16] Jackiw, R., *Rev. modern phys.*, 49, 681, (1977)
- [17] Gervais, J.L.; Jevicki, A., *Nuclear phys. B*, 110, 113, (1976)
- [18] Thacker, H.B., *Rev. modern phys.*, 53, 253, (1981)
- [19] Baxter, R., *Ann. physics*, 76, 48, (1973)
- [20] Baxter, R., *Ann. physics*, 76, 1, (1973)
- [21] Garbaczewski, P., *J. math. phys.*, 22, 574, (1981)
- [22] Johnson, J.D.; Krinsky, S.; McCoy, B., *Phys. rev. A*, 8, 2526, (1973)
- [23] Luther, A., *Phys. rev. B*, 14, 2153, (1976)
- [24] Baxter, R., *Ann. physics*, 76, 25, (1973)
- [25] Thacker, H.B., *J. math. phys.*, 21, 1115, (1980)
- [26] Lieb, E.H., *Phys. rev. lett.*, 18, 692, (1967)
- [27] Lieb, E.H., *Phys. rev.*, 62, 167, (1967)
- [28] Yang, C.N.; Yang, C.P., *Phys. rev.*, 150, 321, (1966)

[29] Sklyanin, E.K.; Takhtajan, L.A.; Faddeev, L.D., Teoret. mat. fiz., 40, 184, (1979), (in Russian)

[30] {\sc L. D. Faddeev}, Steklov Math. Inst. preprint, Leingrad, 1979.

[31] Baxter, R.J., Ann. physics, 70, 193, (1972)

[32] ()

[33] {\sc P. Garbaczewski}, Mechanisms of the fermion-boson reciprocity, submitted. · [Zbl 0541.70030](#)

This reference list is based on information provided by the publisher or from digital mathematics libraries. Its items are heuristically matched to zbMATH identifiers and may contain data conversion errors. It attempts to reflect the references listed in the original paper as accurately as possible without claiming the completeness or perfect precision of the matching.