

## Corrigenda

### Gauge theory description of spin ladders

Y Hosotani 1997 *J. Phys. A: Math. Gen.* 30 L757–64

There was a factor 2 error in the evaluation of the mean-field energy on page L758, which affects various factors in the paper. Above equation (4) on page L758, the mean-field energy should be  $E_{\text{mean}} = J \left\{ \frac{1}{2} NU^2 - 2U \cot(\pi/N) + \frac{1}{4} N \right\}$  and equation (4) should read

$$U_n = \frac{2}{\pi} e^{i\ell A_n}.$$

On page L759, above equation (9),  $\mu c^2 = 2kJ/\pi \sim 0.637kJ$ .

In equation (20),  $\kappa$  is given by

$$\kappa = \dots = \frac{e^{2\gamma}}{8} \frac{|J'|}{J} \sim 0.397 \frac{|J'|}{J}.$$

In equation (21)

$$\Delta_{\text{spin}} = \dots = \frac{e^{2\gamma} k}{4\pi} |J'| = 0.25k|J'|.$$

PII: S0305-4470(98)95790-0

### The continuum Schrödinger–Coulomb and Dirac–Coulomb Sturmian functions

R Szymtkowski 1998 *J. Phys. A: Math. Gen.* 31 4963–90

The following equations were printed incorrectly. They should read

$$S_{\mu,l}(2\lambda r) \stackrel{r \rightarrow 0}{\sim} r^{l+1} \quad S_{\mu,l}(2\lambda r) \text{ bounded for } r \rightarrow \infty \quad (6)$$

$$r\Phi_{\mu,\kappa m_j}(E, r) \stackrel{r \rightarrow 0}{\sim} r^{\gamma_\kappa} \quad r\Phi_{\mu,\kappa m_j}(E, r) \text{ bounded for } r \rightarrow \infty \quad (41)$$

$$S_{\mu,\kappa}(2\lambda r) \stackrel{r \rightarrow 0}{\sim} r^{\gamma_\kappa} \quad T_{\mu,\kappa}(2\lambda r) \stackrel{r \rightarrow 0}{\sim} r^{\gamma_\kappa} \quad (48)$$

$$r\bar{\Phi}_{\mu,\kappa m_j}(E, r) \stackrel{r \rightarrow 0}{\sim} r^{\gamma_\kappa} \quad r\bar{\Phi}_{\mu,\kappa m_j}(E, r) \text{ bounded for } r \rightarrow \infty \quad (131)$$

$$M_{\eta\gamma}(z) = z^{\gamma+1/2} e^{-z/2} {}_1F_1(\gamma + \frac{1}{2} - \eta; 2\gamma + 1; z) \quad (190)$$

$$P_{\mu,l}(r) \stackrel{r \rightarrow 0}{\sim} r^{l+1} \quad P_{\mu,l}(r) \text{ bounded for } r \rightarrow \infty. \quad (203)$$

The fourth line of equation (151) should start with 'x'.

The fourth, fifth and sixth sentences of the paragraph following equation (149) should read as follows. 'This is indeed the case and initially we shall find the second set of orthogonality relations for the radial Sturmians of the second kind  $\{(\bar{S}_{\bar{\mu}\kappa}(x) \ \bar{T}_{\bar{\mu}\kappa}(x))^\top\}$ . To this end we consider two differential equations of the form (133) satisfied by the functions  $(\bar{S}_{\bar{\mu}\kappa}(x') \ \bar{T}_{\bar{\mu}\kappa}(x'))^\top$  and  $(\bar{S}_{\bar{\mu}'\kappa}(x') \ \bar{T}_{\bar{\mu}'\kappa}(x'))^\top$ , respectively. We premultiply the equation for  $(\bar{S}_{\bar{\mu}\kappa}(x') \ \bar{T}_{\bar{\mu}\kappa}(x'))^\top$  by  $(\bar{S}_{\bar{\mu}'\kappa}(x') \ \bar{T}_{\bar{\mu}'\kappa}(x'))$ , the equation for  $(\bar{S}_{\bar{\mu}'\kappa}(x') \ \bar{T}_{\bar{\mu}'\kappa}(x'))^\top$  by  $(\bar{S}_{\bar{\mu}\kappa}(x') \ \bar{T}_{\bar{\mu}\kappa}(x'))$ , subtract the results and integrate from  $x' = 0$  to  $x' = x$ .'

PII: S0305-4470(98)95830-9