

## Resonance and web structure in discrete soliton systems: the two-dimensional Toda lattice and its fully discrete and ultra-discrete analogues

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## Corrigendum

### Resonance and web structure in discrete soliton systems: the two-dimensional Toda lattice and its fully discrete and ultra-discrete analogues

K Maruno and G Biondini 2004 *J. Phys. A: Math. Gen.* 37 11819–39

There are some minor errors of notations.

- (i)  $N_-$  and  $N_+$  must be interchanged throughout the paper. For example, ‘ $(N_-, N_+)$ ’ must be replaced with ‘ $(N_+, N_-)$ ’, ‘ $N_- = M - N$ ’ with ‘ $N_- = N$ ’, ‘ $N_+ = N$ ’ with ‘ $N_+ = M - N$ ’, ‘ $c_{i,N_+i}$ ’ with ‘ $c_{i,N_-+i}$ ’ and ‘ $c_{i,N_-+i}$ ’ with ‘ $c_{i,N_+i}$ ’.
- (ii) In sections 2 and 3, replace ‘ $n \rightarrow \infty$ ’ with ‘ $n \rightarrow -\infty$ ’ and ‘ $\rightarrow -\infty$ ’ with ‘ $n \rightarrow +\infty$ ’.
- (iii) In sections 4 and 5, replace ‘ $m \rightarrow \infty$ ’ with ‘ $m \rightarrow -\infty$ ’ and ‘ $\rightarrow -\infty$ ’ with ‘ $m \rightarrow +\infty$ ’.
- (iv) In theorem 3.3 in section 3, replace  $K_i(*, -)$  with  $K_i(*, +)$ ,  $K_i(*, +)$  with  $K_i(*, -)$  and  $\Delta_i(*, -)$  with  $\Delta_i(*, +)$ .
- (v) Remove the following two sentences in line 10 from the bottom on page 11834 ‘Note however that the (2,1)-soliton . . . taking the ultra-discrete limit’.
- (vi) In line 13 from the bottom on page 11822, ‘ $N = 2\tau$  function’ must be replaced with ‘ $N = 2\tau$ -function’.
- (vii) In definition 3.1, lemma 3.2, definition 5.1 and lemma 5.2, replace ‘ $I(n)$ ’ with ‘ $I(s)$ ’, ‘ $\sigma_{i,j} = n$ ’ with ‘ $\sigma_{i,j} = s$ ’ and ‘ $\{(\eta_i, \eta_{M-n+i-1}) | i = 1, \dots, n + 1\}$ ’ with ‘ $\{(\eta_i, \eta_{M-s+i-1}) | i = 1, \dots, s + 1\}$ ’. Also replace ‘ $j = M - n - 1$ ’ with ‘ $j = M - s - 1$ ’ in line 7 on page 11824.
- (viii) In definitions 3.1 and 5.1, replace ‘ $\{|\eta_l | \eta_l(c_{i,j}) > \eta_i(c_{i,j}) = \eta_j(c_{i,j})|\}$ ’ with ‘ $\{|\eta_l | \eta_l(c_{i,j}) < \eta_i(c_{i,j}) = \eta_j(c_{i,j})|\}$ ’, ‘larger’ with ‘smaller’ in line 2.
- (ix) In line 6 on page 11824, replace ‘ $\eta_{i+1}, \dots, \eta_{j-1} < \eta_i = \eta_j < \eta_1, \dots, \eta_{i-1}, \eta_{j+1}, \dots, \eta_M$ ’ with ‘ $\eta_{i+1}, \dots, \eta_{j-1} > \eta_i = \eta_j > \eta_1, \dots, \eta_{i-1}, \eta_{j+1}, \dots, \eta_M$ ’. In lines 9–10 on page 11824 and line 12 from bottom on page 11830, replace ‘smaller (larger)’ with ‘larger (smaller)’.
- (x) In line 10 from bottom on page 11824, replace

$$\underbrace{\eta_{i+1}, \eta_{i+2}, \dots, \eta_{i+N-1}}_{N-1} < \eta_i = \eta_{N+i}$$

with

$$\underbrace{\eta_{i+1}, \eta_{i+2}, \dots, \eta_{i+N-1}}_{N-1} > \eta_i = \eta_{N+i}.$$

In line 7 on page 11825, replace

$$\eta_i = \eta_{N+i} < \underbrace{\eta_1, \eta_2, \dots, \eta_{i-1}, \eta_{N+i+1}, \dots, \eta_M}_{N-1}$$

with

$$\eta_i = \eta_{N+i} > \underbrace{\eta_1, \eta_2, \dots, \eta_{i-1}, \eta_{N+i+1}, \dots, \eta_M}_{N-1}.$$

(xi) In equation (6.10) on page 11832, replace (6.10) with

$$v_{l,m,n} = \Delta' \lim_{\epsilon \rightarrow 0^+} \epsilon \log \tau_{l,m,n}^\epsilon.$$