Errata

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Changes appear in yellow. Line $k+$ (resp., line $k-$) denotes the kth line from the top (resp., the bottom) of a page.

Chapter 1

Page 58. Equation (1.135) is superfluous. Originally, it was intended to write $b(n)$ in (1.132) as

$$b(n) = \Lambda_0 - \sum_{j=1}^{p} c_j(p) \frac{\partial}{\partial w_j} \ln\left(\frac{\theta(\underline{A} + \underline{B}n + \underline{w})}{\theta(\underline{A} - \underline{B} + \underline{B}n + \underline{w})} \right)\bigg|_{\underline{w}=0}, \tag{1.132}$$

with

$$\Lambda_0 = \frac{1}{2} \sum_{m=0}^{2p+1} E_m - \sum_{j=1}^{p} \lambda_j. \tag{1.135}$$

Page 99. Replace $a(n)^2$ in line 7$-$ by $a(n, t_r)^2$ and $b(n)$ in line 6$-$ by $b(n, t_r)$.

Page 99. A correction analogous to that in equation (1.135) on page 58 applies: Line 1$-$ is superfluous. Originally, it was intended to write $b(n, t_r)$ in line 5$-$ and 6$-$ as

$$b(n, t_r) = \Lambda_0 - \sum_{j=1}^{p} c_j(p) \frac{\partial}{\partial w_j} \ln\left(\frac{\theta(\underline{A} + \underline{B}n + \underline{C}_r t_r + \underline{w})}{\theta(\underline{A} - \underline{B} + \underline{B}n + \underline{C}_r t_r + \underline{w})} \right)\bigg|_{\underline{w}=0},$$

with

$$\Lambda_0 = \frac{1}{2} \sum_{m=0}^{2p+1} E_m - \sum_{j=1}^{p} \lambda_j.$$

Chapter 3

Page 194. Equation (3.38) should read:

$$\hat{f}_{\ell,\pm}(\alpha, \beta) = \hat{h}_{\ell,\mp}(\beta, \alpha), \quad \hat{g}_{\ell,\pm}(\alpha, \beta) = \hat{g}_{\ell,\mp}(\beta, \alpha), \quad \ell \in \mathbb{N}_0. \tag{3.38}$$

Page 228. The last line of the displayed formula in the middle of the page should read:

$$= \frac{F_{\underline{p}}}{F_{\underline{p}}^-}\left(1 + \frac{\alpha H_{\underline{p}}}{(c_{0,+}/2)z^{-p_-}y + G_{\underline{p}}}\right) \underset{P\to\hat{\mu}_j}{=} \frac{F_{\underline{p}}(z)}{F_{\underline{p}}^-(z)}O(1).$$

Page 292. The last line of the displayed formula in Hypothesis 3.50 should read:

$$\alpha(n,\,\cdot\,),\ \beta(n,\,\cdot\,) \in C^1(\mathbb{R}),\ n\in\mathbb{Z}, \quad \alpha(n,t_{\underline{p}})\beta(n,t_{\underline{p}}) \notin \{0,1\},\ (n,t_{\underline{p}})\in\mathbb{Z}\times\mathbb{R}.$$

Page 294. Equation (3.371) should read

$$D(t_{\underline{p}}) = \exp\left(\frac{i}{2}\int_0^{t_{\underline{p}}} ds\big(g_{p_+,+}(0,s) - g_{p_-,-}(0,s)\big)\right)D(0), \quad t_{\underline{p}}\in\mathbb{R}, \tag{3.371}$$

Bibliography

Page 399. Ahmad, S. and Chowdhury, A. Roy. 1987b. The quasiperiodic solutions to the discrete nonlinear Schrödinger equation. *J. Math. Phys.,* **28** 134–137.
Page 411. Killip, R. and Nenciu, I. 2006, appeared in *Comm. Pure Appl. Math.* **60** (2007) 1148–1188.