

•p.27 Chapter 3: The displayed formula should be

$$\mathbf{x}^2 = -|\mathbf{x}|^2 e_0 = -(x_1^2 + x_2^2 + \cdots + x_n^2) e_0.$$

If we expand $\mathbf{x}^2 = (x_1 e_1 + \cdots + x_n e_n)^2$, then the formula above is true for all $\mathbf{x} \in \mathbb{R}^n \iff e_j^2 = -1$ for $j = 1, \dots, n$ and $e_j e_k + e_k e_j = 0$ for $j, k = 1, \dots, n$ and $j \neq k$.

•p.68 §5.1: The equation

$$\frac{1}{2\pi i} \int_C \frac{f(\zeta)}{\det(\zeta I - M)} d\zeta = \frac{1}{(N-1)!} \int_{S(\mathbb{C}^N)} f^{(N-1)}(\langle Mu, u \rangle) d\nu(u)$$

is correct because $p_M(\zeta) = \det(M - \zeta I) = (-1)^N \det(\zeta I - M)$.

•p.71 Prop. 5.4: Here the equation should be

$$\frac{1}{2\pi i} \int_C \frac{f(\zeta)}{p_M(\zeta)} d\zeta = \frac{(-1)^N}{(N-1)!} \int_{S(\mathbb{C}^N)} f^{(N-1)}(\langle Mu, u \rangle) d\nu(u).$$

The \LaTeX code “frac” was omitted on both sides of the equation. This equation does not actually appear in Nelson’s 1966 paper. It is a by-product of the Cauchy integral formula proof for matrices.