

The Mathematical Language of Quantum Theory  
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ERRATA  
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- page 13, equation above Eq.(1.21):  
The equality should be  $\leq$ .
- page 14, Example 1.19, 3rd displayed equation:  
 $\sum_{j=0}^{\infty} |\zeta_j|^2$  should be  $\sqrt{\sum_{j=0}^{\infty} |\zeta_j|^2}$ .
- page 59, 1st line:  
... but  $\xi_\epsilon \notin \mathcal{S}(\mathcal{H})$ . ... should be ... but  $\xi_\epsilon$  is not positive. ...
- page 59, Proof of Proposition 2.18, 3rd line:  
Sentence “In particular,  $\xi_\epsilon \notin \mathcal{S}(\mathcal{H})$ .” should be removed.
- pages 68-69 (proof of Prop. 2.30) and also pages 74-75:  
Strictly speaking, to say linearity (for the extensions), one has to show also that  $\tilde{E}(cT) = c\tilde{E}(T)$  for  $c \in C$  (in addition to  $\tilde{E}(T + S) = \tilde{E}(T) + \tilde{E}(S)$ ). This follows directly from Eq.(2.20).
- page 103, the first displayed equation:  
It should read

$$P_\psi = |\psi\rangle\langle\psi| = \sum_{j,k=1}^n \sqrt{p_j p_k} |\eta_j\rangle\langle\eta_k| \otimes |\phi_j\rangle\langle\phi_k|.$$

- page 112, Example 3.11, 1st line under Eq.(3.7):  
... satisfy the relation  $\vec{m}_j \cdot \vec{m}_k = -\frac{1}{2}$  for  $j \neq k$  ... should be ... satisfy the relations  $\vec{m}_j \cdot \vec{m}_k = -\frac{2}{9}$  for  $j \neq k$  and  $\|\vec{m}_k\| = \frac{2}{3}$  ...
- page 145, displayed Eq. above Eq.(3.43):  
 $\frac{2}{3}$  should be  $\frac{3}{2}$
- page 147, 4th line from bottom:  
Notation is not properly introduced. In fact,  $E_{\vec{j}} = A(\vec{j}) = A(j_1) \otimes \cdots \otimes A(j_n)$ ,  
 $f_j = f(j)$  and  $p_j = p(j)$ .
- page 166, Example 3.83, last reference:  
[5] should be [4]
- page 181, 2nd line of the first displayed equation:  
 $\text{tr}_B$  should be  $\text{tr}_{\text{anc}}$

- page 181, 2nd displayed equation:  
 $\text{tr}_B$  should be  $\text{tr}_{\text{anc}}$
- page 192, Proof of Proposition 4.27, beginning of the 7th line:  
 $\sum_s$  should be  $\sum_s \sum_{j,j'}$
- page 208, right-hand side of Eq.(4.49): indexes,  
 $|\varphi_j \otimes \varphi_k\rangle\langle \varphi_j \otimes \varphi_k|$  should be  $|\varphi_j \otimes \varphi_j\rangle\langle \varphi_k \otimes \varphi_k|$
- page 268, Example 6.12:  
 In the first displayed equation  $\pm$  is missing on the right-hand side.
- page 288, line before eq (6.34):  
 $\mathcal{R}$  should be  $\mathbb{R}$