

ERRATA CORRIGE June 5 2019

V. Moretti, **Spectral Theory and Quantum Mechanics: Mathematical Structure of Quantum Theories, Symmetries and introduction to the Algebraic Formulation**, Springer 2018

The author thanks A. Di Matteo, M. Oppio, K.-H. Neeb, T. Nowik

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<p>p52, 8th from the top, right-most term in the formula</p> $\leq \ b_0\ (1 + \ b_0\ + \ a_0\)$	<p>Correct to</p> $\leq \ a - a_0\ (1 + \ b_0\) + \ a_0\ \ b - b_0\ $
<p>P53 displayed formula on line 7 from the top</p> <p>..... (-1)ⁿ((c-b)b⁻¹)ⁿ</p>	<p>Correct to</p> <p>....(-1)ⁿ(b⁻¹(c-b))ⁿ</p>
<p>P110 displayed formula 9th line from the top</p> $p(x,y)^2 \leq (p(x) + p(y))^2$	<p>Correct to</p> $p(x+y)^2 \leq (p(x) + p(y))^2$
<p>p314, 3rd line from the top</p> <p>“...for the restrictions of \geq and \neg.”</p>	<p>Complete the statement</p> <p>“...for the restrictions of \geq and \neg. More precisely, $\sup\{a,b\}$ and $\inf\{a,b\}$ computed in the subset must coincide with, respectively, $\sup\{a,b\}$ and $\inf\{a,b\}$ computed in X and the top and the bottom of the subset must coincide with those of X.”</p>
<p>p724, text of Definition 12.57</p> <p>“An embedded (analytic) submanifold $G' \subset G$ in a Lie group that is also a subgroup inherits a Lie group structure from G. In such case G' is a Lie subgroup of G.”</p> <p>...</p> <p>A Lie group G is said to be simple if it does...”</p>	<p>Correct and complete to</p> <p>“An immersed (analytic) submanifold $G' \subset G$ in a Lie group that is also a subgroup and inherits a Lie group structure from G is called Lie subgroup of G. G' is an embedded Lie subgroup if it is also embedded as a submanifold.”</p> <p>...</p> <p>A (connected) non-Abelian Lie group G is said to be simple if it does...”</p>
<p>p725, text of Theorem 12.59</p> <p>“...then G' is a Lie subgroup of G (including the case of a discrete Lie group)...”</p>	<p>Insert the missed text</p> <p>“...then G' is an embedded Lie subgroup of G (including the case of a discrete Lie group)...”</p>
<p>p725, Immediately after Proposition 12.60</p> <p>“Summing up, closure completely characterises Lie subgroups.”</p>	<p>Insert the missed text</p> <p>“Summing up, closure completely characterises embedded Lie subgroups.”</p>
<p>p730, text of Theorem 12.66, Hypotheses</p> <p>“Let G be a connected non-compact Lie group and...”</p>	<p>Insert the missed text</p> <p>“Let G be a connected non-compact simple Lie group and...”</p>
<p>p731, text of Theorem 12.66, Proof, 6th line from the top</p> <p>“By definition of Lie subgroup, U_0 is an embedded submanifold of $U(n)$.”</p>	<p>Complete the statement</p> <p>“Since G is a simple Lie group its Lie algebra is simple and hence it is semisimple. As a consequence U_0 is semisimple as well and Theorem 14.5.9 of [HiNe13] implies that it is closed in $U(n)$. Finally Cartan’s theorem proves that U_0 is a Lie subgroup of $U(n)$. By definition of Lie subgroup, U_0 is an embedded submanifold of $U(n)$.”</p>
<p>p731, text of Remarks 12.67 (1)</p> <p>“The theorem applies to $SO(1, 3)^\dagger$ since this is non-compact...”</p>	<p>Insert the missed text</p> <p>“The theorem applies to $SO(1, 3)^\dagger$ since this is a simple Lie group, non-compact...”</p>

