

Erratum

Classical Projections of Quantum Mechanics and the Limit $\hbar \rightarrow 0$

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In the work (Polakovič, 2001) there was proved Theorem 3. This theorem is correct. But it wasn't recognized by the author that it can have a nicer (but equivalent) formulation given here.

Theorem 3'. *Let $x(t)$ have the mentioned meaning where $t \in \langle 0, T + \varepsilon \rangle$ for some $T > 0, \varepsilon > 0$, let $x(0) = x_0$. Let $x_\lambda(t)$ have also the mentioned meaning for $\lambda > 0$ sufficiently small, $x_\lambda(0) = x_0$. Then there exists $\lambda_0 > 0$ such that for $0 < \lambda < \lambda_0$ the solution $x_\lambda(t)$ is defined on $\langle 0, T \rangle$ and the dynamics $x_\lambda(t)$ uniformly converges to $x(t)$ on $\langle 0, T \rangle$ for $\lambda \rightarrow 0$.*

So now it is clear that the given type of convergence is really the uniform convergence on compact intervals in time. In the paper there is a remark that the given type of convergence is weaker than this uniform convergence. This remark is, of course, wrong.

REFERENCES

Polakovič, M. (2001). Classical projections of quantum mechanics as $\hbar \rightarrow 0$. *International Journal of Theoretical Physics* **40**(3), 755–765.