

ERRATA

John D. Dollard, *Quantum-mechanical scattering theory for short-range and Coulomb interactions*, Rocky Mt. J. Math. 1 (1971), 5-88.

On p. 41 of this article it is claimed that the potential

$$V(\vec{x}) = \frac{e_1 e_2 \sin x}{x}$$

is a potential for which the usual Møller wave-matrices exist, while

$$\int_1^\infty \|V e^{-iH_0 t} f\| dt = \infty,$$

at least for $f \in S$.

Mr. Preben Alsholm of the Mathematics Department at Berkeley has pointed out a flaw in the suggested proof of the existence of the Møller wave matrices, which I have been unable to repair. Hence the status of the claim is now unclear. It should be noted that

(1) This example was intended as a curiosity, and plays no role in the body of the paper, whose correctness remains unaffected.

(2) Mr. Alsholm has given examples of potentials for which the above claim is true, namely any potential of the form

$$V(x) = \frac{\sin x^p}{x}$$

with $0 < p < 1/2$.

I thank Mr. Alsholm for pointing out this error.

On p. 71 it is claimed that the first two terms of (391) constitute an acceptable $A'(t)$ for a convergence proof. This is questionable. However, this statement was also intended as a curiosity, is never referred to again, and plays no role in the body of the paper. The $A'(t)$ given in (400) for the case under discussion is correct, as stated in the paper.

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