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Relativistic three-particle quantization condition: an update

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Last year, we presented a generalization of Luescher's two-particle quantization condition to three identical, degenerate particles. While completing this work, we discovered a technical problem with our derivation which invalidated the result, in the sense that not all finite-volume corrections that fall as powers of the box size were controlled. We have found a fix to this problem, which maintains the form of our original result, but involves a new infinite-volume quantity that is not directly related to the three-particle scattering amplitude. We will sketch the problem and its resolution, and discuss the practical utility of our result.

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