

## **Triton binding energy and neutron-deuteron scattering up to next-to-leading order in chiral effective field theory**

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Determination of the proper power-counting scheme is an important issue for the systematic application of Chiral Effective Field Theory in nuclear physics. We analyze the cutoff dependence of three-nucleon observables (the neutron-deuteron scattering lengths and the triton binding energy) at the leading and next-to-leading orders of a power counting that ensures order-by-order renormalization in the two-nucleon system. Our results confirm that, as usually assumed in the literature, three-body forces are not needed for renormalization of the three-nucleon system up to next-to-leading order. The error correction to the previous reported result is discussed.

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