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Symanzik Improvement of Non-Relativistic Field Theories

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I will describe a method to reduce spatial discretization errors in lattice formulations of pionless effective field theory. All $O(\Delta x)$ errors are cancelled, and generalizing to higher orders is simple. The method relies on set of renormalization conditions fixed by finite-volume energy levels, and may be useful for supernova phenomenology and cold-atomic physics, where spatial discretization errors are large.

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