

Abstract Submitted  
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**Two-Nucleon Systems in a Finite Volume** RAUL BRICENO, ZOHREH DAVOUDI, University of Washington, THOMAS LUU, Lawrence Livermore National Laboratory, MARTIN SAVAGE, University of Washington — With Lattice QCD calculations in mind, I will motivate the study of two-nucleon systems in a finite volume and review issues regarding partial wave mixing. I will outline the derivation of the the quantization condition for two nucleons in a finite volume with periodic boundary conditions. The result holds for arbitrary isospin, parity, and momenta below inelastic thresholds. I will pay close attention to the positive parity sector and consider the implication of the quantization condition for the two-nucleon spectrum at the physical point.

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