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Three neutrons from Lattice QCD

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We present a study on ab-initio calculations of three-neutron correlators, and more generally, three-nucleon correlators, from Lattice QCD. Baryon blocks have been employed to simulate two nucleon systems in the past. We extend the method to three nucleons. In addition, we use automatic code generation to provide more flexibility and allow for easy inclusion of additional channels in the future while optimizing the evaluation of sub-expressions. We present some preliminary results of our calculations.

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