Abstract for an Invited Paper for the NWS10 Meeting of The American Physical Society

Lattice QCD Study on Hadron Interactions¹ HUEY-WEN LIN, University of Washington

To understand the nature of matter from the everyday nuclei of atoms on Earth to the exotic matter in dense stellar environments, we must study the strong interactions between hadrons. In this talk, I will review recent progress on calculating hadron interactions directly from quantum chromodynamics (QCD) using integration over discrete four-dimensional spacetime lattices. I will cover selected scattering processes within the light-hadron sector and also some including charmed mesons and charmonia. Finally, I will sketch out the effort to perform few-body calculations and discuss the prospects for future developments.

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