

WEDNESDAY

MARCH 23

4:00 P.M.

RM 118 NSH

Refreshments
in Rm 202 NSH
@ 3:30 pm

Nuclear physics from lattice QCD

Prof. Silas Beane

University of Washington

Over the last several decades, theoretical nuclear physics has been evolving from a very-successful phenomenology of the properties of nuclei, to a first-principles derivation of the properties of visible matter in the Universe from the known underlying theories of Quantum Chromodynamics (QCD) and Electrodynamics. Many developments are being achieved using lattice QCD, a method for treating QCD numerically with large computers. After a brief motivational introduction, I will present some calculations of the properties of the simplest nuclear and hypernuclear systems using lattice QCD, including recent results which probe the electromagnetic structure of nuclei.