



# Lattice simulations for nuclear physics

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4:00 P.M.

Rm 118 NSH

This colloquium talk is an introduction to how atomic nuclei and other quantum few- and many-body systems can be studied using lattice simulations. The first part of the talk explains the basic formalism called lattice effective field theory. The rest of the talk is a discussion of novel methods and the new physics insights one gains with each. The methods discussed are the adiabatic projection method for scattering and reaction calculations, pinhole algorithm for probing structure, and eigenvector continuation for extending calculations to regions of parameter space where things otherwise break down.