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Two- and three-particle scattering amplitudes from lattice QCD

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The extraction of scattering amplitudes from lattice QCD simulations is reaching a mature stage. In this talk, I will review the well-established two-particle finite-volume scattering formalism, including some of our recent results for isospin-2 pion scattering at the physical point. I will also discuss the status of the formalism for the computation of three-particle scattering amplitudes from the lattice, which is becoming a hot topic in the lattice QCD community. I will show some numerical implementations of the three-particle quantization condition that allow for numerical studies of bound states. Finally, I will present some of the first applications of the three-particle finite-volume formalism to real lattice QCD data, which have observed statistical evidence for a three-pion coupling at maximal isospin.

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