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Type: 3rd week (Nishinomiya-Yukawa symposium)

Chiral EFT for nuclear interactions using gradient flow

Tuesday, October 29, 2024 9:00 AM (1 hour)

Low-energy nuclear structure and reactions can be described in a systematically improvable way using the framework of chiral EFT. This requires solving the quantum mechanical many-body problem with regularized nuclear interactions, derived from the most general effective chiral Lagrangian. To maintain the chiral and gauge symmetries, a symmetry preserving cutoff regularization has to be employed when deriving nuclear potentials. I will present our recent work along this line, which opens an avenue for high-accuracy studies of chiral dynamics beyond the two-nucleon sector.

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