42nd International Symposium on Lattice Field Theory (Lattice 2025)



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Nucleon-nucleon interactions: past, present, and future

Monday 3 November 2025 12:30 (30 minutes)

Grounding nuclear physics in the Standard Model has been a longstanding goal for many in the lattice QCD community. The combined issues of signal-to-noise and difficulties associated with quantifying multihadronic interactions have required enormous efforts and improvements in computational techniques and analysis over the course of decades. Now, we have reached a time when computational and algorithmic advancements are finally allowing for faithful, consistent results for two-nucleon calculations across multiple collaborations using different approaches, paving the way for full calculations at the physical point. In this talk, I will focus on calculations of nucleon-nucleon interactions, highlighting the issues faced, the current status of the field, and the potential for future calculations in the realm of nuclear physics.

Parallel Session (for talks only)

Plenary talk

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Session Classification: Plenary session