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## Recent advances in chiral forces and uncertainty quantification for nuclear structure

*Tuesday, December 10, 2024 9:00 AM (40 minutes)*

Describing nuclear phenomena across a wide range of energy scales from hundreds of MeV in binding energies to fractions of an MeV for low-lying excitations—remains a long-standing challenge in nuclear physics. The ab initio method is a systematically improvable approach for quantitatively describing nuclei using the finest resolution scale possible while maximizing its predictive capabilities. In this talk, I will highlight recent advances in ab initio nuclear structure calculations, focusing on developments in chiral nuclear forces and methods for estimating uncertainties in theoretical predictions.

**Presenter:** Prof. EKSTRÖM, Andreas (Chalmers University of Technology)

**Session Classification:** Nuclear interaction