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## **Extending the Reach of ab Initio Nuclear Theory**

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A major goal of modern nuclear structure theory is to produce calculations with meaningful uncertainty estimates. Achieving this goal requires ab initio many-body methods which can employ realistic nuclear interactions and solve the Schrodinger equation with reliable precision. The past decade has witnessed a tremendous growth in the range of applicability of ab initio many-body methods, first in light nuclei, then to medium-mass closed shells, one or two particles or holes on top of closed-shells, and ground states of even-even nuclei. I will discuss recent developments in the valence-space in-medium similarity renormalization group method, which enable ab initio treatment of ground and excited states of essentially all nuclei up to mass number  $A \sim 100$ .

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