

## Recent advances in the in-medium similarity renormalization group

### Contenu

The *ab initio* description of nuclear systems has undergone a major renewal due to the use of low-resolution interaction derived from chiral effective field theory in conjunction with many-body techniques admitting for mild computational scaling [1]. Nowadays many-body practitioners are able to target systems with up to one hundred interacting particles from first principles in a systematically controllable way [2]. In this talk I will cover recent developments in the non-perturbative in-medium similarity renormalization group (IMSRG) approach that eventually pave the way for scalable yet accurate predictions of many-body observables in atomic nuclei.

[1] H. Hergert, *Front. Phys.* 8, 379 (2020).

[2] T. Morris *et al.*, *Phys. Rev. Lett.* 120, 152503 (2018)

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