

# Operator evolution from the similarity renormalization group and the Magnus expansion

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## Abstract

Ideas for Magnus / SRG operator evolution paper

- Testing the Magnus expansion for high cutoff potentials using the potentials from Wendt 2011 for comparison. Spurious bound states and connection to intruder states in IMSRG calculations.
- SRG/Magnus evolution in different potentials (non-local, local, semi-local). Universality. High cutoffs?
- Block-diagonal generator for high cutoff potentials and operator evolution. How the block-diagonal generator handles spurious bound states.
- SRG operator evolution for different potentials and generators.

## **I. INTRODUCTION**

## **II. FORMALISM**

## **III. RESULTS**

## **IV. CONCLUSION**