

Abstract Submitted  
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**A general ab initio framework for non-scalar observables in medium-mass nuclei**<sup>1</sup> NATHAN PARZUCHOWSKI, The Ohio State University, RAGNAR STROBERG, TRIUMF National Laboratory, SCOTT BOGNER, HEIKO HERGERT, Michigan State University, PETR NAVRATIL, TRIUMF National Laboratory, TITUS MORIS, Oak Ridge National Laboratory — In the past decade, there has been a vast expansion of the applicability of so-called ab initio methods which describe nuclear structure by solving the many-body Schrödinger equation as accurately as possible, starting from realistic inter-nucleon interactions. While many of these methods have very successfully ventured into the medium-mass region, most have not yet been exploited to predict observables other than energies, such as transition strengths and moments. This talk will discuss new applications of the in-medium similarity renormalization group (IMSRG) to compute excited states and non-scalar observables for medium-mass closed- and open-shell nuclei. [arXiv:1705.05511, submitted to Phys. Rev. C]

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Nathan Parzuchowski  
The Ohio State University

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