

## **PROSPECTS FOR BREAKTHROUGHS IN UNDERSTANDING NUCLEI**

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Understanding atomic nuclei is a quantum many-body problem of incredible richness and diversity and studies of nuclei address some of the great challenges that are common throughout modern science. In this talk, advances in physics with nuclei will be reviewed in the context of the main scientific questions. Particular attention will be given to the science of rare isotopes and to theoretical studies of nuclei at the eve of extreme-scale computing.