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Error estimates in importance truncated nuclear structure calculations MICHAEL KRUSE, BRUCE BARRETT, University of Arizona — The importance truncation procedure, used in both quantum chemistry and now in nuclear structure calculations, has led to the possibility of doing large scale many-body calculations, without the need to use all the millions (possibly billions) of basis states present. Once the calculations are done in a truncated basis, an extrapolation on the energy is made, in order to recover the full model space calculation. However, these extrapolations have recently come into question as to their reliability. In this talk I will show some truncated nuclear structure calculations, which I then compare to the exact calculations. I will also discuss the many-body implications of working in this particular truncated model space, specifically, the question of size-extensivity.

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